HYDRO GEO CHEM, INC. Environmental Science & Technology

Chain of Custody

eri (Time) (Date) (Time) NUMBER OF CONTAINERS RECEIVED BY (LABORATORY) 6 RELINGUISHED BY (Printed Name) (Printed Name) (Company) (Signature) Signature) SOWA -INORGANICS (8) STATEM (Time) (Date) (Time) (Date) **XOT 93** TTLC/STLC CAM METALS (18) PRIORITY POLLUTANT METALS (13) RELINQUISHED BY ANALYSIS REQUEST RECEIVED BY Printed Name) Printed Name nos (Company) Company) (Signature) Signature) PETROLEUM HYDROCARBONS 418 HALIDES 9020 TOTAL ORGANIC STATES OF THE PROPERTY OF THE PR 0208/209 AROMATIC VOLATILES VOLATILES 601/8010 HALOGENATED 0008/009 **SHENOTS' SOB SHENOTS** INVOICE TO DIEB/018 SITAMORA POLYNUCLEAR 0808/809 PESTICIDES/PCB VOLATILE CMPDS. CC/WZ\ 625/8270 REC'D GOOD CONDITION/COLD BASE / NEU/ACID CMPDS. TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS SAMPLE RECEIPT LA8 10 CONFORMS TO RECORD (PHONE NO MATRIX 35 AB NO. TIME DATE PROJECT INFORMATION SPECIAL INSTRUCTIONS/COM SAMPLERS (SIGNATURE) SAMPLE ID. ō ADDRESS PROJ. MGR. COMPANY SHIPPING PO NO VIA

51 West Wetmore Road, Suite 101 Tucson, AZ 85705-1678 (520) 293-1500

WHITE, CANARY - ANALYTICAL LABORTORY . PINK - ORIGINATOR

DISTRIBUTION:

L60869: Page 12 of 15

HYDRO GEO CHEM, INC. Environmental Science & Technology

NUMBER OF CONTRINERS

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Chain of Custody RECEIVED BY (LABORATORY) RELINQUISHED BY (Printed Name) (Signature) Signature) (Printed SDWA - INORGANICS PRIMARY/SECONDARY (8) STATEM ď (Time) (Date) (Time) (Date) **EP TOX** TTLC/STLC CAM METALS (18) METALS (13) TNATULIOS YTIROIRS RELINQUISHED BY ANALYSIS REQUEST RECEIVED BY (Printed Name Printed Name (Company) (Company) (Signature) Signature HYDROCARBONS 418 MUBLORTB9 TOTAL ORGANIC TOTAL ORGANIC CARBON 415/9060 0208/209 SAUITALOV DITAMORA VOLATILES 601/8010 **HALOGENATED** 0908/909 **SHENOTS' SOB SHENOTS** INVOICE TO OFER 610/8310 POLYNUCLEAR 0808/809 PESTICIDES/PCB VOLATILE CMPDS. CC/WZ\ 625/8270 REC'D GOOD CONDITION/COLD BASE / NEU/ACID CMPDS TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS 0 CONFORMS TO RECORD (PHONE NO LAB MATRIX \mathcal{Z} LAB NO. TIME るの SPECIAL INSTRUCTIONS/COMMENTS: PROJECT INFORMATION SAMPLERS (SIGNATURE) GN - 5505-33-012501 SAMPLE ID. SHIPPING 1D. PROJ. MGR. ADDRESS COMPANY PO NO VIA:

WHITE, CANARY - ANALYTICAL LABORTORY . PINK - ORIGINATOR DISTRIBUTION:

(Time)

Name

(Date)

(Time)

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L60869: Page 13 of 15

HYDRO GEO CHEM, INC.

Chain of Custody

NUMBER OF CONTAINERS (Time) (Date) RECEIVED BY (LABORATORY) 75.001 Stalland RELINQUISHED BY Printed Name (Printed Name :5M049 [Company] (Signature) SDWA - INORGANICS EP TOX /Time/ (23kg) (Time) (Date) CAM METALS (18) Geo Chen PRIORITY POLLUTANT DATE. ANALYSIS REQUEST RELINGOLIENED | RECEIVED BY Printed Name) nas (Company) Company) (Signature) HADBOCARBONS 418 TOTAL ORGANIC DINABRO JATOT 0806/314 NOBRAD 602/8020 VOLATILES 601/8010 HALOGENATED 0008/009 **SHENOTS' SOB SHENOTS** INVOICE TO OFERIORS SITAMORA POLYNUCLEAR e08/8080 besticides/pc8 GC/WS/ 824/8240 ANTIN MINTED HIRLINGS GC/WZ/ 825/8270 REC'D GOOD CONDITION/COLD BASE / NEU/ ACID CMPDS TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS SAMPLE RECEIPT LAB ID CONFORMS TO RECORD PHONE NO. MATRIX THE STATE OF THE S 116 18.4° LAB NO. Mr. Finds TIME PORCOST VE SPECIAL INSTRUCTIONS/COMMEN M PORPORATION DATE PROJECT INFORMATION 4 SAMPLERS (SIGNATURE) 一年 一年 一日 SAMPLE ID. SHIPPING TO, NO PROJ. MGR. COMPANY ADDRESS PROJECT PO NO. XIA:

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HYDRO GEO CHEM, INC.

Environmental Science & Technology

Chain of Custody

(Date) (Time) NUMBER OF CONTAINERS RECEIVED BY (LABORATORY) 2 incaloralizary 3600 بأبيه لر RELINGUISHED BY Tion. 40 (Printed Name) SWILL (Company) (Signature) PRIMARY/SECONDARY METALS (8) N (Date) Aime / (Time) (Date) CAM METALS (18) TTLC/STLC PRIORITY POLLUTANT METALS (13) DATE RECEIPTONISHED BY ANALYSIS REQUEST RECEIVED BY Printed Name MIN (Spanie) (Company) (Signature) PETROLEUM PETROCERBONS 418 TOTAL ORGANIC TOTAL ORGANIC 602/8020 VOLATILES 601/8010 GETANBOOJAH 0408/409 PHENOLS, SUB PHENOLS POLYNUCLEAR PROMATIC 610/8310 908/8090 E21/CIDE2/bCB VOLATILE CMPOS. GC/WS/ 825/8270 REC'D GOOD CONDITION/COLD BASE/NEU/ACID CMPDS TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS SAMPLE RECEIPT CONFORMS TO RECORD LAB ID (PHONE NO. MATHIX 1 ALCO NO. LAB NO. DOM: TIME SPECIAL INSTRUCTIONS/COMMENTS: SIW WHIM (WDE 14 SXX 33 50 50 11 12 601 DATE PROJECT INFORMATION Milanoa とうだ ASJGNATURE 8 SAMPLE ID. SHIPPING 10, NO PROJ. MGR. COMPANY ADDRESS SAMPLEBES PO NO VIA:

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51 West Wetmore Road, Suite 101 Tucson, AZ 85705-1678 (520) 293-1500

(Company)

0:0

L60869: Page 15 of 15

February 09, 2007

Report to:

Bill Dorris

Phelps Dodge Sierrita

P.O. Box 527

Green Valley, AZ 85622-0527

cc: Jim Norris, Kim Garcia

Project ID: OJ00XN ACZ Project ID: L60852

Bill Dorris:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 25, 2007. This project has been assigned to ACZ's project number, L60852. Please reference this number in all future inquiries.

Bill to:

Accounts Payable

P.O. Box 2671

Phelps Dodge Sierrita

Phoenix, AZ 85002-2671

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60852. 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 March 09, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

5 09/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

CW-8-012407

ACZ Sample ID: L60852-01

Date Sampled:

01/24/07 11:36

Date Received:

01/25/07

Sample Matrix: Ground Water

Metals	

Parameter	EFA Method	Rosill Que	100	Units	MDL	101	Dete	Marin Sa
Calcium, dissolved	M200.7 ICP	125	*	mg/L	0.2	1	02/01/07 4:47	wfg
Magnesium, dissolved	M200.7 ICP	8.9		mg/L	0.2	1	02/01/07 4:47	wfg
Potassium, dissolved	M200.7 ICP	6.3		mg/L	0.3	2	02/01/07 4:47	wfg
Sodium, dissolved	M200.7 ICP	123		mg/L	0.3	2	02/01/07 4:47	wfg
Wet Chemistry								

Forcemeter	EPA Method	Result	Qual	ЖĎ	Units	MBL	POL	Deile	tra yer
Alkalinity as CaCO3	SM2320B - Titration			***************************************			***************************************		
Bicarbonate as		95			mg/L	2	20	02/06/07 0:00	cas
CaCO3									
Carbonate as CaCO3	3		U		mg/L	2	.20	02/06/07 0:00	cas
Hydroxide as CaCO3	i e		U		mg/L	2	20	02/06/07 0:00	cas
Total Alkalinity		95		*	mg/L	2	20	02/06/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-1.2			%			02/09/07 12:14	calc
Sum of Anions		12.9			meq/L	0.1	0.5	02/09/07 12:14	calc
Sum of Cations		12.6			meq/L	0.1	0.5	02/09/07 12:14	calc
Chloride	M300.0 - Ion Chromatography	51.1		*	mg/L	0.5	3	01/30/07 14:49	jlf
Conductivity @25C	M120.1 - Meter	1260		*	umhos/cm	- 1	10	02/06/07 21:05	cas
Fluoride	M300.0 - Ion Chromatography	1.0		*	mg/L	0.1	0.5	01/30/07 14:49	jlf
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	1.32			mg/L	0.02	0.1	02/09/07 12:14	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1.32	Н	*	mg/L	0.02	0.1	01/26/07 18:19	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		UH	*	mg/L	0.01	0.05	01/26/07 18:19	pjb
pH (lab)	M150.1 - Electrometric								
pН		8.1	Н	*	units	0.1	0.1	02/06/07 0:00	cas
pH measured at		21.0			С	0.1	0.1	02/06/07 0:00	cas
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	880			mg/L	10	20	01/30/07 9:32	lcp
Sulfate	300.0 - Ion Chromatography	449		*	mg/L	5	30	01/31/07 17:27	jlf
TDS (calculated)	Calculation	827			mg/L	10	50	02/09/07 12:14	calc
TDS (ratio - measured/calculated)	Calculation	1.06			-			02/09/07 12:14	calc

Arizona license number: AZ0102

L60852: Page 2 of 22

Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

CW-10-012407

Date Sampled:

01/24/07 12:15

Date Received:

01/25/07

Sample Matrix: Ground Water

							Section 2015 April 1989		
Metals Analysis									
Parameter	EPA Method	Tonsii II	(a)	70	Bolls	MDL		Drake	
Calcium, dissolved	M200.7 ICP	29.8		*	mg/L	0.2	1	02/01/07 4:51	wfg
Magnesium, dissolved	M200.7 ICP	1.8			mg/L	0.2	1	02/01/07 4:51	wfg
Potassium, dissolved	M200.7 ICP	2.7			mg/L	0.3	2	02/01/07 4:51	wfg
Sodium, dissolved	M200.7 ICP	43.3			mg/L	0.3	2	02/01/07 4:51	wfg
Wet Chemistry									
Parameter	EPA Method	Result	Otto	χO	Units	MDL	FOL	Date	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		122			mg/L	2	20	02/06/07 0:00	cas
Carbonate as CaCO3	3	3	В		mg/L	2	20	02/06/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	02/06/07 0:00	cas
Total Alkalinity		125		*	mg/L	2	20	02/06/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-2.7			%			02/09/07 12:14	calc
Sum of Anions		3.8			meq/L	0.1	0.5	02/09/07 12:14	calc
Sum of Cations		3.6			meq/L	0.1	0.5	02/09/07 12:14	calc
Chloride	M300.0 - Ion Chromatography	8.4		*	mg/L	0.5	3	01/30/07 15:07	ilf
Conductivity @25C	M120.1 - Meter	372		*	umhos/cm	1	10	02/06/07 21:13	cas
Fluoride	M300.0 - Ion Chromatography	0.7		*	mg/L	0.1	0.5	01/30/07 15:07	jlf
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.45			mg/L	0.02	0.1	02/09/07 12:14	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.45	Н	*	mg/L	0.02	0.1	01/26/07 18:21	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		UH	*	mg/L	0.01	0.05	01/26/07 18:21	pjb
pH (lab)	M150.1 - Electrometric								
рН		8.3	Н	*	units	0.1	0.1	02/06/07 0:00	cas
pH measured at		21.0			С	0.1	0.1	02/06/07 0:00	cas
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	240			mg/L	10	20	01/30/07 9:33	lcp
Sulfate	300.0 - Ion Chromatography	48.6		*	ma/l	0.5	2	04/00/07 45:07	***
TDS (calculated)	Calculation	213			mg/L	0.5	3	01/30/07 15:07	jlf
TDS (ratio -	Calculation	1.13			mg/L	10	50	02/09/07 12:14	calc
measured/colculated)	Calculation	1.15						02/09/07 12:14	calc

Arizona license number: AZ0102

measured/calculated)

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-577707-012307

ACZ Sample ID: *L60852-03*

Date Sampled:

01/23/07 16:52

Date Received:

01/25/07

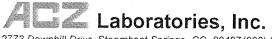
Sample Matrix:

Ground Water

Field Data									
Parameter	EPA Method	Feetill	Qual	34.0	Linits	MDL	POL	Drake	
Conductivity (Field)	Field Measurement	400			mS/cm			01/23/07 16:50	kg
pH (Field)	Field Measurement	7.6			units			01/23/07 16:50	kg
Temperature (Field)	Field Measurement	28.1			С			01/23/07 16:50	kg
Metals Analysis									
Parameter	EPA Method	Result	Qual	100	Units	Mini	71612	Date	
Calcium, dissolved	M200.7 ICP	33.0		*	mg/L	0.2	1	02/01/07 4:55	wfg
Magnesium, dissolved	M200.7 ICP	5.7			mg/L	0.2	1	02/01/07 4:55	wfg
Potassium, dissolved	M200.7 ICP	3.8			mg/L	0.3	2	02/01/07 4:55	wfg
Sodium, dissolved	M200.7 ICP	29.1			mg/L	0.3	2	02/01/07 4:55	wfg
Wet Chemistry									
Parameter	EPA Method	Result	Qual	KO	Units	MDL	FOL	Distro	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		161			mg/L	2	20	02/06/07 0:00	cas
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	02/06/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	02/06/07 0:00	cas
Total Alkalinity	Onlandation	162		*	mg/L	2	20	02/06/07 0:00	cas
Cation-Anion Balance Cation-Anion Balance	Calculation								
Sum of Anions		-1.4			%			02/09/07 12:14	calc
Sum of Cations		3.6			meq/L	0.1	0.5	02/09/07 12:14	calc
	M200 0 les Observed servet	3.5		*	meq/L	0.1	0.5	02/09/07 12:14	calc
Chloride	M300.0 - Ion Chromatography	8.7	_		mg/L	0.5	3	01/30/07 16:01	jIf
Fluoride	M300.0 - Ion Chromatography	0.3	В	*	mg/L	0.1	0.5	01/30/07 16:01	jlf
·	Calculation: NO3NO2 minus NO2	1.26			mg/L	0.02	0.1	02/09/07 12:14	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1.26	Н	*	mg/L	0.02	0.1	01/26/07 18:23	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		HU	*	mg/L	0.01	0.05	01/26/07 18:23	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	200			mg/L	10	20	01/30/07 9:35	Icp
Sulfate	300.0 - Ion Chromatography	3.6		*	mg/L	0.5	3	01/30/07 16:01	jlf
TDS (calculated)	Calculation	186			mg/L	10	50	02/09/07 12:14	calc
TDS (ratio - measured/calculated)	Calculation	1.08						02/09/07 12:14	calc

Arizona license number: AZ0102

L60852: Page 4 of 22



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-577707-012307

ACZ Sample ID: *L60852-04*

Date Sampled:

01/23/07 16:56

Date Received:

01/25/07

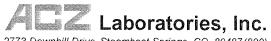
Sample Matrix:

Ground Water

Wet Chemistry

Parameter	EPA Method	E contribu	Oual	χO		MDL	PDL	Date A	
Sulfate	300.0 - Ion Chromatography	2.6	В	*	mg/L	0.5	3	01/30/07 16:20	jlf

Arizona license number: AZ0102



Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

CW-8-012407

ACZ Sample ID:

L60852-05

Date Sampled:

01/24/07 12:12

Date Received:

01/25/07

Sample Matrix: Ground Water

Wet Chemistry

7.01 01.01.11.0ti y								
Parameter	EPA Method	Rossii	Yana i				Date /	Mally of
Conductivity @25C	M120.1 - Meter	1290		umhos/cm	1	10	02/06/07 21:25	cas
pH (lab)	M150.1 - Electrometric							
рН		8.2	Н	units	0.1	0.1	02/06/07 0:00	cas
pH measured at		21.0		С	0.1	0.1	02/06/07 0:00	cas
Sulfate	300.0 - Ion Chromatography	459	*	mg/L	5	30	01/31/07 17:45	jlf

Arizona license number: AZ0102

L60852: Page 6 of 22

Inorganic Analytical Results 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

CW-10-012407

ACZ Sample ID: L60852-06

Date Sampled:

01/24/07 11:34

Date Received:

01/25/07

Sample Matrix: Ground Water

Wet Chemistry

8000	Parameter	EFA Reitrod	Result	2015	(G Units	H B	770	Pare	nalysi
(Conductivity @25C	M120.1 - Meter	376		umhos/cm	1	10	02/06/07 21:29	cas
-	pH (lab)	M150.1 - Electrometric					•		
	pН		8.3	Н	units	0.1	0.1	02/06/07 0:00	cas
	pH measured at		21.0		С	0.1	0.1	02/06/07 0:00	cas
. :	Sulfate	300.0 - Ion Chromatography	47.7		mg/L	0.5	3	01/30/07 16:56	jlf

Arizona license number: AZ0102

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

	r 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 I	imit Allows	for instrument and appual flustrations
PCN/SCN	· -		
PQL	A number assigned to reagents/standards to trace to the	e manuraciui	er's certificate of analysis
QC	Practical Quantitation Limit, typically 5 times the MDL.	to the Calles	
Rec	True Value of the Control Sample or the amount added	•	LCCC ma/Ka)
RPD	Amount of the true value or spike added recovered, in 9	, ,	0 0 ,
Upper	Relative Percent Difference, calculation used for Duplica Upper Recovery Limit, in % (except for LCSS, mg/Kg)	ate QC Types	
Sample	Value of the Sample of interest		

els Champio			
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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
of Consiste T	/pe Explanations		
Blanks	Verifies that there is no or minir	nal contamina	ation in the prep method or calibration procedure.
Control Sa	mples Verifies the accuracy of the me	thod, includin	g the prep procedure.
Duplicates	•		
	tified Matrix Determines sample matrix inter	ferences, if a	ny.
Standard	Verifies the validity of the calibr	ation.	·
	s (Qual)		
В	Analyte concentration detected at a value between MDL	and PQL.	
Н	Analysis exceeded method hold time. pH is a field test	with an imme	ediate hold time.
R	Poor spike recovery accepted because the other spike i	n the set fell	within the given limits.
T .	High Relative Percent Difference (RPD) accepted becau	ise sample co	oncentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicat		
V	High blank data accepted because sample concentratio	n is 10 times	higher than blank concentration
W	Poor recovery for Silver quality control is accepted beca	use Silver oft	ten precipitates with Chloride.
X	Quality control sample is out of control.		
Z	Poor spike recovery is accepted because sample conce	ntration is fou	ur times greater than spike concentration.
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of V	Vater and Wa	setes March 1083
(2)	EPA 600/R-93-100. Methods for the Determination of Ir		
(3)	EPA 600/R-94-111. Methods for the Determination of M		
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste		•
(6)	Standard Methods for the Examination of Water and Wa		•
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Clarification of the Examination of Water and Wa	otewater, 191	in Common, 1880.
Commission	r pulser en legel en		
(1)	QC results calculated from raw data. Results may vary	slightly if the	rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses	are reported o	on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on	an "as receiv	ed" basis.

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Alkalinity as Ca	СОЗ		SM2320E	3 - Titration									
ACZ (I)	Type	Analyzed	PONISON	QC	Sample	Found	Units	Rec	La year	Upper	117.0	Line	Oral
WG220090													
WG220090LCSW2	LCSW	02/06/07 18:38	WC070127-6	820		828.4	mg/L	101	80	120			
WG220090LCSW5	LCSW	02/06/07 20:18	WC070127-6	820		830.9	mg/L	101.3	80	120			
L60822-08DUP	DUP	02/06/07 20:57			U	U	mg/L				0	20	RA
L60822-09DUP	DUP	02/06/07 22:18			U	U	mg/L				0	20	RA
WG220090LCSW8	LCSW	02/06/07 22:31	WC070127-6	820		831.6	mg/L	101.4	80	120			
Calcium, dissol	ved		M200.7 I	CP						* *************************************			
ACZ ID	Type	Analyzza	PONISON	ΩC		Found	Units	Pos	Letter	Sager	H.F.	Limit	Gual
WG219891													
WG219891ICV	ICV	02/01/07 2:47	11070116-1	100		98.42	mg/L	98.4	95	105			
WG219891ICB	ICB	02/01/07 2:51				U	mg/L		-0.6	0.6			
WG219891LFB	LFB	02/01/07 3:07	11070119-5	67.95918		66.3	mg/L	97.6	85	115			
L60846-05AS	AS	02/01/07 4:39	11070119-5	67.95918	436	476.01	mg/L	58.9	85	115			M3
L60846-05ASD	ASD	02/01/07 4:43	11070119-5	67.95918	436	473.05	mg/L	54.5	85	115	0.62	20	МЗ
Chloride			M300.0 -	Ion Chroma	atograph	ıy				**************************************			
A 5 / 2 3		Anelyzer	Postson	C.D.		courses	11111	Res	Lance	Upper		Lim I	Eleminate Company
WG219654													
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	20		20.16	mg/L	100.8	90	110			
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-1.5	1.5			
WG219806													
WG219806ICV	ICV	01/29/07 13:03	IC070104-1	20		20.16	mg/L	100.8	90	110			
WG219806ICB	ICB	01/29/07 13:21				U	mg/L		-1.5	1.5			
WG219806ICV1	ICV	01/30/07 11:48	IC070104-1	20		20.09	mg/L	100.5	90	110			
WG219806ICB1	ICB	01/30/07 12:06				· U	mg/L		-1.5	1.5			
WG219806LFB	LFB	01/30/07 12:24	IC061106-1	30		30.28	mg/L	100.9	90	110			
L60833-01AS	AS	01/30/07 13:37	IC061106-1	30	4.4	33.61	mg/L	97.4	90	110			
L60852-06DUP	DUP	01/30/07 17:14			8.1	8.04	mg/L				0.7	20	
L59307-01DUP	DUP	01/31/07 16:33			1	.99	mg/L				1	20	RA
L60861-11AS	AS	01/31/07 18:21	IC061106-1	60	127	185.3	mg/L	97.2	90	110			
WG219806ICV2	ICV	02/01/07 14:30	IC070104-1	20		20.1	mg/L	100.5	90	110			
WG219806ICB2	ICB	02/01/07 14:48				U	mg/L		-1.5	1.5			
Conductivity @:	25C		M120.1 -	Meter									
AEZIB	7713	Armyzad	PENANT	010	Sample	Follows	Hills	Rec	Legis	Saper	RPD	1.1111	Otal
WG220090													
WG220090PBW1	PBW	02/06/07 18:25				U	umhos/cn		-10	10			
WG220090LCSW1	LCSW	02/06/07 18:26	PCN26468	1408.8		1491	umhos/cm	105.8	80	120			
WG220090PBW2	PBW	02/06/07 20:06				1.4	umhos/cn		-10	10			
WG220090LCSW4	LCSW	02/06/07 20:08	PCN26468	1408.8		1486	umhos/cn	105.5	80	120			
L60822-08DUP	DUP	02/06/07 20:57			3920	3920	umhos/cn				0	20	
L60822-09DUP	DUP	02/06/07 22:18			1650	1645	umhos/cn				0.3	20	
WG220090LCSW7	LCSW	02/06/07 22:20	PCN26468	1408.8		1480	umhos/cn	105.1	80	120			

Inorganic QC Summany

Phelps Dodge Sierrita

Project ID:

OJ00XN

	CONTRACTOR DE LA PRIMEIRA DE LA PRIM		Maria Maria da Cara da		and the second second		Madaga Angara	CONTRACTOR OF THE SECOND	Massing and supplied		and the same of the same	SECTION AND PROPERTY.	
Fluoride			M300.0	- Ion Chrom	atograph	ıy							
- F. J.	Type		100000	0.0	Samuel	Folia	Units	To.:	o (Ser		RPD	Limit	Dial
WG219654													
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-0.3	0.3			
WG219806													
WG219806ICV	ICV	01/29/07 13:03	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219806ICB	ICB	01/29/07 13:21				U	mg/L		-0.3	0.3			
WG219806ICV1	ICV	01/30/07 11:48	IC070104-1	3.992		3.99	mg/L	99.9	90	110			
WG219806ICB1	ICB	01/30/07 12:06				U	mg/L		-0.3	0.3			
WG219806LFB	LFB	01/30/07 12:24	IC061106-1	1.5		1.52	mg/L	101.3	90	110			
L60833-01AS	AS	01/30/07 13:37	IC061106-1	1.5	U	1.56	mg/L	104	90	110			
L60852-06DUP	DUP	01/30/07 17:14			.7	.69	mg/L				1.4	20	RA
L60861-11AS	AS	01/30/07 17:50	IC061106-1	1.5	.3	1.74	mg/L	96	90	110			
L59307-01DUP	DUP	01/31/07 16:33			U	U	mg/L				0	20	RA
WG219806ICV2	ICV	02/01/07 14:30	IC070104-1	3.992		3.97	mg/L	99.4	90	110	-		
WG219806ICB2	ICB	02/01/07 14:48				.12	mg/L		-0.3	0.3			
Magnesium, dis	ssolved		M200.7	ICP	A	····							
A 67Z (I)	Type	Assets easi	PIONAMEN	C)C	Sample	Found	Units	Rec		Upper	RPD	Limit	Pital
WG219891													
WG219891ICV	ICV	02/01/07 2:47	11070116-1	100		97.4	mg/L	97.4	95	105			
WG219891ICB	ICB	02/01/07 2:51				U	mg/L		-0.6	0.6			
WG219891LFB	LFB	02/01/07 3:07	11070119-5	54.98614		53.69	mg/L	97.6	85	115			
L60846-05AS	AS	02/01/07 4:39	11070119-5	54.98614	37.8	90.89	mg/L	96.6	85	115			
L60846-05ASD	ASD	02/01/07 4:43	11070119-5	54.98614	37.8	90.17	mg/L	95.2	85	115	0.8	20	
Nitrate/Nitrite a	s N, dis	solved	M353.2 -	- Automated	Cadmiu	m Reduc	tion						
A97/18		Analyzani	FOUSIEN	C		France	Units	1120	Lower	Green	200	Land	
WG219725													
WG219725ICV	ICV	01/26/07 18:12	WI061207-1	2.416		2.311	mall	95.7	00	440			
WG219725ICB	ICB	01/26/07 18:14	VVI001207=1	2.410		2.311 U	mg/L	95.7	90	110			
WG219725LFB	LFB	01/26/07 18:17	WI060906-4	2			mg/L	00.3	-0.06	0.06			
L60852-01AS	AS	01/26/07 18:17	WI060906-4	2	1.32	1.986 3.269	mg/L	99.3	90	110			
L60852-02DUP	DUP	01/26/07 18:22	VV1000500-4	2	.45	.461	mg/L mg/L	97.5	90	110	2.4	20	
Nitrite as N, dis	havias	- None	M353.2.	- Automated	Cadmiu	m Poduc							
APZ ID	Sorveu	Analyzed	W1303.2 -	Automateu	Caumu			Rec	CONTEST	Upper		Limit	
								11.01	1.139781				
WG219725													
WG219725ICV	ICV	01/26/07 18:12	WI061207-1	.609		.609	mg/L	100	90	110			
WG219725ICB	ICB	01/26/07 18:14				U	mg/L		-0.03	0.03			
WG219725LFB	LFB	01/26/07 18:17	WI060906-4	1		.994	mg/L	99.4	90	110			
L60852-01AS	AS	01/26/07 18:20	WI060906-4	1	U	1.008	mg/L	100.8	90	110			
L60852-02DUP	DUP	01/26/07 18:22	***************************************		U	U	mg/L			· · · · · · · · · · · · · · · · · · ·	0	20	RA

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

pH (lab)			M150.1	- Electromet	ric							
A7-72 [B	Туре	Analyzad	PENERIN	ξįν		Council	Units	Rec	Lower	Upper	RPD	Limit Dani
WG220090												-
WG220090LCSW3	LCSW	02/06/07 18:41	PCN25442	6		6.05	units	100.8	90	110		
WG220090LCSW6	LCSW	02/06/07 20:21	PCN25442	6		6.05	units	100.8	90	110		
L60822-08DUP	DUP	02/06/07 20:57			3.6	3.65	units				1,4	20
L60822-09DUP	DUP	02/06/07 22:18			3.7	3.65	units				1.4	20
WG220090LCSW9	LCSW	02/06/07 22:34	PCN25442	6		6.06	units	101	90	110		
Potassium, dis	solved		M200.7	ICP								
	777		FIGURE 1	OC.		7.11	Units	1.2.	Lower	Upper		Limit Card
WG219891												
WG219891ICV	ICV	02/01/07 2:47	II070116-1	20		20.19	mg/L	101	95	105		
WG219891ICB	ICB	02/01/07 2:51				U	mg/L		-0.9	0.9		
WG219891LFB	LFB	02/01/07 3:07	11070119-5	99.51014		98.95	mg/L	99.4	85	115		
L60846-05AS	AS	02/01/07 4:39	11070119-5	99.51014	9.3	110.77	mg/L	102	85	115		
L60846-05ASD	ASD	02/01/07 4:43	11070119-5	99.51014	9.3	109.72	mg/L	100.9	85	115	0.95	20
Residue, Filtera	ble (TDS	S) @180C	M160.1	- Gravimetri	C	***************************************						
ACZ ID	V)	11317246	PENSON	51		Found			1.01.1 = 1		1171	
WG219796												
WG219796PBW	PBW	01/30/07 9:30				U	mg/L		-20	20		
WG219796LCSW	LCSW	01/30/07 9:31	PCN26282	261		274	mg/L	105	80	120		
L60864-03DUP	DUP	01/30/07 9:45			2400	2378	mg/L			, 200	0.9	20
Sodium, dissol	/ed		M200.7	ICP	***************************************	****				**************************************		***
A67/10	Tyrre		PONSEN	616	Sample		Units	Rec	Lower	Upper	RPE	Limit Such
WG219891												
WG219891ICV	ICV	02/01/07 2:47	11070116-1	100		100.31	mg/L	100.3	95	105		
WG219891ICB	ICB	02/01/07 2:51				U	mg/L		-0.9	0.9		
WG219891LFB	LFB	02/01/07 3:07	11070119-5	99.90786		98.56	mg/L	98.7	85	115		
L60846-05AS	AS	02/01/07 4:39	11070119-5	99.90786	79.5	174.14	mg/L	94.7	85	115		
L60846-05ASD	ASD	02/01/07 4:43	11070119-5	99.90786	79.5	172.4	mg/L	93	85	115		

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sulfate			300.0 - Io	n Chroma	itography							,	mand posture to publicate the
ACZ ID	Title		1000000	20	Samulo		drift		LONG	Upper	1121	Limit	Onal
WG219654													
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	50		50.87	mg/L	101.7	90	110			
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-1.5	1.5			
WG219806													
WG219806ICV	ICV	01/29/07 13:03	IC070104-1	50		50.87	mg/L	101.7	90	110			
WG219806ICB	ICB	01/29/07 13:21				U	mg/L		-1.5	1.5			
WG219806ICV1	ICV	01/30/07 11:48	IC070104-1	50		50.39	mg/L	100.8	90	110			
WG219806ICB1	ICB	01/30/07 12:06				U	mg/L		-1.5	1.5			
WG219806LFB	LFB	01/30/07 12:24	IC061106-1	30		30.36	mg/L	101.2	90	110			
L60852-06DUP	DUP	01/30/07 17:14			47.7	47.69	mg/L				0	20	
L59307-01DUP	DUP	01/31/07 16:33			6.3	6.35	mg/L				0.8	20	
L60833-01AS	AS	01/31/07 17:09	IC061106-1	60	124	174.2	mg/L	83.7	90	110			M2
WG219806ICV2	ICV	02/01/07 14:30	IC070104-1	50		49.99	mg/L	100	90	110			
WG219806ICB2	ICB	02/01/07 14:48				U	mg/L		-1.5	1.5			
L60861-11AS	AS	02/01/07 15:24	IC061106-1	150	146	294.6	mg/L	99.1	90	110			

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

	WCFFXNLIM	PARAMETER	METHOD		DESCRIPTION
L60852-01	WG219891	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219806	Chloride	M300.0 - ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220090	Conductivity @25C	M120.1 - Meter	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
	WG219806	Fluoride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219725	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220090	pH.	M150.1 - Electrometric	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
	WG219806	Sulfate	300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG220090	Total Alkalinity	SM2320B - Titration		Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
			SM2320B - Titration		Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

* ************************************					NOL 1 TOJOCK ID.
A GZZ ID	nio Peter III in	PARAMETER	NIE92:08	a la A	DESCRIPTION
L60852-02	WG219891	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219806	Chloride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220090	Conductivity @25C	M120.1 - Meter	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
	WG219806	Fluoride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219725	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220090	pΗ	M150.1 - Electrometric	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
	WG219806	Sulfate	300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG220090	Total Alkalinity	SM2320B - Titration	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
			SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60852-03	WG219891	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219806	Chloride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Fluoride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219725	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	HE	Analysis performed past holding time. Method holding time is less than or equal to 7 days and sample was received with less than half of the holding time remaining (refer to item C5 of ACZ's Terms & Conditions).
			M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219806	Sulfate	300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG220090	Total Alkalinity	SM2320B - Titration	QA	Sample container with preservation type specified by the method was not available for analysis. Alternate sample container was used.
			SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60852-04	WG219806	Sulfate	300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

A 5 7	777	71771127			DESCRIPTION
L60852-05	WG219806	Sulfate	300.0 - Ion Chromatography	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60852

No certification qualifiers associated with this analysis

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60852

Date Received:

1/25/2007

Received By:

Date Printed:

1/26/2007

Research Continging

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

NO	NA
	X
	X
	X
	Х
	Х
	Х
	X
	NO

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Cartelines

Cooler Id	Temp (°C)	Rad (µR/hr)
NA2872	5.1	15
NA2871	4.5	15

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

Receipt

Phelps Dodge Sierrita OJ00XN

ACZ Project ID: Date Received:

L60852 1/25/2007

Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60852-01	CW-8-012407		Υ		CONTRACTOR OF THE PARTY OF THE							
L60852-02	CW-10-012407		Y							***		
L60852-03	GW-577707-012307		Υ				-				-	
L60852-04	GW-577707-012307									X		
L60852-05	CW-8-012407									×		
L60852-06	CW-10-012407									X		

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs	Reviewed By:	

HYDRO GEO CHEM, INC. Environmental Science & Technology

Chain of Custody

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PAGE.

DATE 1-24-07

NUMBER OF CONTAINERS (Time) (Date) RECEIVED BY (LABORATORY) RELINOUISHED BY DJ (Printed Name (Printed Name Hd (Signature) Company PRIMARY/SECONDARY SDINY SINOBERNICE EP TOX METALS (8) 8 (Time) (Date) (Date) (Time) TTLC/STLC CAM METALS (18) METALS (13) TNATUJJO9 YTIROIR9 REALINOU/SHED BY ANAL YSIS REQUEST RECEIVED BY (Printed Name) (Printed Name Company) (Signature) (Company) PETROLEUM HYDROCARBONS 418 TOTAL ORGANIC DINADRO JATOT 0806/214 NOBRAD 902/8020 AROMATIC VOLATILES HALOGENATED VOLATILES 601/8010 0008/009 **SHENOTS' 208 SHENOTS** INVOICE TO: AROMATIC 610/8310 POLYNUCLEAR 608/8080 PESTICIDES/PCB GC/WZ\ 854/8540 VOLATILE CMPDS SPECIAL INSTRUCTIONS/COMMENTS: FI / HERE Samples CC/W2\ 852\85\0 REC'D GOOD CONDITION/COLD BASE/NEU/ACID CMPDS TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS SAMPLE RECEIPT ₫ CONFORMS TO RECORD (PHONE NO. LAB MATRIX 3 5 35 3 See note on page 1 AB NO. 1-24-07 1136 5121 10-42-1 Chem S121 KO-22-1 TIME I'm Garcia (0-42-1 DATE PROJECT INFORMATION SIWest 46.50n SAMPLERS (SIGNATURE) 10-10-01-01-01 COH710-8-M2 TOYSIO-01-W2 CO1210-8-M SAMPLE ID. 0 COMPANY ADDRESS PROJ. MGR. SHIPPING PROJECT PO NO.

51 West Wetmore Road, Suite 101 Tucson, AZ 85705-1678 (520) 293-1500

DISTRIBUTION: WHITE, CANARY ANALYTICAL LABORTORY . PINK - ORIGINATOR

L60852: Page 19 of 22

L60652

Report to: Name: Hydro Geo Chem Lnc Company: An Carcina E-mail: Company: Telephone: 520 793-1500 Copy of Report to: Name: Company: E-mail: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone: Telephone	ACZ Labor 2773 Downhill Drive Steamboal	Springs, CO 80487	3. (800) 334	5493					AIN o
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HYDRO GEO CHEM, INC. Environmental Science & Technology

Chain of Custody

NUMBER OF CONTAINERS (Time) (Date) RECEIVED BY TEMBORATORY) O.F. RELINOUISHED BY (Printed Name) (Printed Name (Company) (Signature) (Signathy SDWA -INORGANICS (8) STATEM (Time) **EP TOX** (Date) (Date) TTC/STLC CAM METALS (18) METALS (13) TNATUJJOS YTIROIRS ANALYSIS REQUEST RELANGUISHED BY RECEIVED BY (Q-OBY) (Printed Name) Printed Name 1911 (Signature) HYDROCARBONS 418 MUBJORTB TOTAL ORGANIC 6200 W. Duval Mine Rd 85622-052, TOTAL ORGANIC 0808\215\9060 PDSI-Ned Hall Green Valley, AZ 0208/209 (250)648-848) SAJITAJOV SITAMORA VOLATILES 601/8010 HALOGENATED PHENOLS, SUB PHENOLS INVOICE TO: 0168/018 DITAMORA POLYNUCLEAR 0808/809 PESTICIDES/PCB CC/W2\ 854/8540 Jimna hacine, com bdornis@ Fivelpsdodge.com VOLATILE CMPOS CC/W2\ 625/8270 copies OF EDDS and Final REC'D GOOD CONDITION/COLD SPECIAL INSTRUCTIONS/COMMENTS: Pleuse send duplicate BASE/NEU/ACID CMPDS TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS SAMPLE RECEIPT LAB ID (PHONE NO. CONFORMS TO RECORD (520) 293-1500 MATRIX 3 8570 9 ner reports LAB NO. m Norris Billy Davis 1212 4611 TIME Tarcia PROJECTS, ETCITA Short 1-27-07 (0-42-1 DATE PROJECT INFORMATION Raw Samples 40504 (\$IGNATURE) CO4210-01-MJ W-8-012407 SAMPLE ID. COMPANY SHIPPING 1D. PROJ. MGR. ADDRESS SAMPLERS PO NO VI.

51 West Wetmore Road, Suite 101 Tucson, AZ 85705-1678 (520) 293-1500

WHITE, CANARY - ANALYTICAL LABORTORY . PINK . ORIGINATOR

(Company)

DISTRIBUTION:

L60852: Page 21 of 22

Meghan Schuetz

From:

Scott Habermehl

Sent:

Wednesday, January 24, 2007 1:21 PM

To:

Sample Receiving

Cc:

DocC

Subject: FW: Samples - Sierrita Special Instructions

see below

Should login under CSIERRI account and cc: Jim Norris, etc.

From: KimG [mailto:kimg@hgcinc.com]

Sent: Wednesday, January 24, 2007 11:00 AM

To: Scott Habermehl

Cc: 'Jim Norris'; 'Hall, E. L. (Ned)'

Subject: Samples

Hi Scott.

I just wanted to let you know that tomorrow you will be receiving 2 coolers containing samples for analysis. The samples collected on 1/23/07 (yesterday) will be received on the same day as they expire, but they should be received in the morning by 10:00 AM via FedEx priority overnight delivery. Also, please note, the COC will be in a rubber glove instead of a plastic bag. I apologize for this, but did not have any plastic bags available. We have since prepared a shipping kit that will be included with all necessary paperwork and field supplies for shipping from the field. Also, due to time constraints during shipping, we were unable to separate the filtered and raw samples on the COC. The final field parameters were measured just before sample collection and were as follows:

Sample ID	Date	Time	Temp	рН	EC
GW-577707-012307	01-23-07	1650	28.1	7.56	400

Additional samples will be collected and shipped today from two more wells: CW-8 and CW-10. These samples will be shipped today via standard overnight delivery on Thursday, 1/25/07.

Also, on another note, I received a request from Phelps Dodge Sierrita that we send all invoices for this project directly to them; the PO Number for this is OJ00XN. This was not stated explicitly on the COC, so if you would, please send these invoices to them. I also would like to request that duplicate copies of the EDDs and reports be sent to Bill Dorris (at Phelps Dodge) and Jim Norris (at Hydro Geo Chem).

If you have any questions, please call me on my cell.

Thanks!

Kim Garcia

Kim Garcia

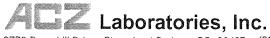
Kimberly A. Garcia Environmental Scientist Hydro Geo Chem, Inc. 51 W. Wetmore Rd. Suite 101 Tucson, AZ 85705

Office Phone: 520-293-1500 x.123

Cell Phone: 520-990-7695

1/25/2007

L60852: Page 22 of 22



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Analytical Report

February 01, 2007

Report to:

Bill Dorris

Phelps Dodge Sierrita

P.O. Box 527

Green Valley, AZ 85622-0527

cc: Jim Norris

Project ID: OJ00XN ACZ Project ID: L60780

Bill Dorris:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 19, 2007. This project has been assigned to ACZ's project number, L60780. Please reference this number in all future inquiries.

Bill to:

Accounts Payable

P.O. Box 2671

Phelps Dodge Sierrita

Phoenix, AZ 85002-2671

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60780. 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 March 01, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

5 02/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





Inorganic Analytical

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-509604-011807

ACZ Sample ID: L60780-01

Date Sampled:

01/18/07 10:16

Date Received:

01/19/07

Sample Matrix:

Qual XQ Units

mS/cm

Ground Water

01/18/07 10:16

kg

kg

kg

Field Data	
Carcamaetter	EPA Method
Conductivity (Field)	Field Measurement

pH (Field) Field Measurement Temperature (Field) Field Measurement

units 01/18/07 10:16 С 01/18/07 10:16

Metals Analysis

Parameter	EPA Method	Recult anal		Units	MDL	FILE	Date	
Calcium, dissolved	M200.7 ICP	197	*	mg/L	0.2	1	01/21/07 4:25	gme
Magnesium, dissolved	M200.7 ICP	29.4		mg/L	0.2	1	01/21/07 4:25	gme
Potassium, dissolved	M200.7 ICP	5.3		mg/L	0.3	2	01/21/07 4:25	gme
Sodium, dissolved	M200.7 ICP	76.8		ma/L	0.3	2	01/21/07 4:25	ame

1501

6.9

31.4

Wet Chemistry

Parameter	EPA Method	F-25111	Ougl		Units	MDL	POL	Date	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		265			mg/L	2	20	.01/31/07 0:00	cas
Carbonate as CaCO3	3		U		mg/L	2	20	01/31/07 0:00	cas
Hydroxide as CaCO3	•		U		mg/L	2	20	01/31/07 0:00	cas
Total Alkalinity		265		*	mg/L	2	20	01/31/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		3.9			%			02/01/07 0:00	calc
Sum of Anions		14.6			meq/L	0.1	0.5	02/01/07 0:00	calc
Sum of Cations		15.8			meq/L	0.1	0.5	02/01/07 0:00	calc
Chloride	M300.0 - Ion Chromatography	212		*	mg/L	3	10	01/29/07 18:47	nps
Fluoride	M300.0 - Ion Chromatography		U	*	mg/L	0.5	3	01/29/07 18:47	nps
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	6.01			mg/L	0.04	0.2	02/01/07 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	6.01		*	mg/L	0.04	0.2	01/19/07 21:08	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/19/07 20:47	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	920			mg/L	10	20	01/24/07 10:52	lcp
Sulfate	300.0 - Ion Chromatography	140			mg/L	3	10	01/29/07 18:47	nps
TDS (calculated)	Calculation	846			mg/L	10	50	02/01/07 0:00	calc

1.09

Arizona license number: AZ0102

Calculation

TDS (ratio -

measured/calculated)

02/01/07 0:00

calc



Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-509604-011807

Date Sampled:

01/18/07 10:15

Date Received:

01/19/07

Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	Result en	al XO Linits	MDL	POL	Date 2	nal yer
Sulfate	300.0 - Ion Chromatography	140	mg/L	3	10	01/29/07 19:24	nps

Arizona license number: AZ0102

L60780: Page 3 of 13

Inorganic Reference

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Seaton	Reservit Acade	r Explanations											
Found Value of the QC Type of interest Limit Lippe limit for RPD, in % Lower Recovery Limit, in % (except for LCSS, mg/Kg) Lower Recovery Limit, in % (except for LCSS, mg/Kg) Lower Recovery Limit, in % (except for LCSS, mg/Kg) Lower Recovery Limit, in % (except for LCSS, mg/Kg) Lower Recovery Limit, in % (except for LCSS, mg/Kg) Practical Quantitation Limit, Typically \$ times the MDL The Walue of the Control Sample of the amount added to the Spike Recovery Limit, in % (except for LCSS, mg/Kg) Retails Percent Difference, calculation used for Duplicate QC Types Upper Recovery Limit, in % (except for LCSS, mg/Kg) Value of the Sample of Interest Loss Laboratory Control Sample - Water Duplicate Loss Laboratory Fortfield Marks Laboratory Fortfield Marks Laboratory Fortfield Marks Loss Laboratory Fortfield Marks Laboratory Fortfield Marks Loss Laboratory Region Limit Laboratory Region Education Limit Laboratory Control Sample - Soil Laboratory Control Sample - Soil Lipit Laboratory Control Sample - Soil Lipit Laboratory Control Sample - Soil Laboratory Control Sample - Soil Lipit Laboratory Control Sample - Soil Lab	Batch	A distinct set of samples analyzed at a specific time											
Lower Recovery Limit, in % (except for LCSS, mg/Kg)	Found												
Mount of Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations. PCNISCN A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis PCL OC Tree Value of the Control Sample or the amount added to the Spike Rec. Amount of the rue value or spike added recovered, in % (except for LCSS, mg/kg) RPD Relative Percent Difference, calculation used for Duplicate QC Types Upper Recovery Limit, in % (except for LCSS, mg/kg) Sample Value of the Sample of Interest AS Analytical Spike (Post Digestion) LCSWD Laboratory Control Sample - Water Duplicate LFB Laboratory Fortified Blank CCP Continuing Calibration Blank LFM Laboratory Fortified Blank CCP Continuing Calibration Standard LFM Laboratory Fortified Matrix Duplicate LRB Laboratory Reagent Blank LBM Matrix Spike Initial Calibration Verification standard LFM Laboratory Reagent Blank LCSWD Matrix Spike Duplicate LCSW Laboratory Control Sample - Soil LBD LCSWB Laboratory Control Sample - Soil Duplicate LCSW Laboratory Control Sample - Soil Duplicate LCSWB Laboratory Control Sample - Soil Duplicate LCSWB Laboratory Control Sample - Soil Duplicate LCSWB Laboratory Control Sample - Water Spikes/Fortified Matrix Determines sample matrix interferences, if any Verifies the excuracy of the method, including the prep procedure. Verifies the validity of the calibration. Yerlies the validity of the calibration. High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL Analyte concentration detected at a value between MDL and PCL Analyte concentration detected at a value between MDL and PCL Analyte concentration detected at a value between MDL and PCL Analyte value sample is out of control. Yerlies the validity of the calibration is four times greater than spike concentration We Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride. Quality cortrol sample is out of control. Yerlies the validity of the calibration	Limit	Upper limit for RPD, in %.											
## PCWSCN A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Limit, typically 5 times the MDL ## Practical Quantitation Spike (Post Digestion) ## Loss Analytical Spike (Post Digestion) ## Loss Analytical Spike (Post Digestion) Duplicate LFB ## Laboratory Fortfried Matrix ## Laboratory Fortfried Matrix ## Laboratory Fortfried Matrix ## Laboratory Fortfried Matrix ## Laboratory Control Sample - Soil Duplicate LFB ## Laboratory Control Sample - Soil Duplicate PFW ## Prep Blank - Water ## Loss Analytical Quantitation Verification standard ## Loss Analytical Quantitation Verification Sample - Soil Duplicate ## Verifies the accuracy of the method, including the prep procedure. ## Verifies the accuracy of the method, including the prep procedure. ## Loss Analytic Concentration detected at the included MDL ## Loss Analytic Concentration detected at the i	Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)											
POLNSON A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis POL	MDL	Method Detection Limit. Same as Minimum Reporting L	imit. Allows for	or instrument and annual fluctuations.									
PCL Practical Quantitation Limit, typically 5 times the MDL. QC True Value of the Control Sample or the amount added to the Spike Rec Amount of the true value or spike added recovered, in % (except for LCSS, mg/kg) Relative Percent Difference, calculation used for Duplicate QC Types Upper Sample Value of the Sample of interest Upper Recovery Limit, in % (except for LCSS, mg/kg) Value of the Sample of interest AS Analytical Spike (Post Digestion) LCSW/// Value of the Sample of interest AS Analytical Spike (Post Digestion) LCSW//// CCC Continuing Calibration Blank LFM Laboratory Fortified Matrix CCC Continuing Calibration Blank LFM Laboratory Fortified Matrix Duplicate LFB Laboratory Matrix Spike Initial Calibration Blank MS Matrix Spike Initial Calibration Blank MS Matrix Spike Initial Calibration Verification standard MSD Matrix Spike Initial Calibration Verification standard MSD Matrix Spike Initial Calibration Verification standard MSD Matrix Spike Duplicate LCSSD Laboratory Control Sample - Soil PBW Prep Blank - Soil LCSSD Laboratory Control Sample - Soil Duplicate PBW Prep Blank - Water Laboratory Control Sample - Water Spike Laboratory Control Sample - Water LCSW Laboratory Control Sample - Water LCSW Laboratory Control Sample - Water Spikes/Fortified Matrix Determines sample matrix interferences. If any. Verifies the accuracy of the method, including the prep procedure. Uprifies the validity of the calibration. AND Analyse exceeded method noted time. PH is a field lest with an immediate hold time. Per Poor spike recovery accepted because the other spike in the set fell within the given limits. The High Relative Percent Difference (RPD) accepted because simple concentration is four times greater than spike concentration. AND Analyse was enalyzed for out not detected at the value of time set fell within the given limits. The High Relative Percent Difference (RPD) accepted becaus	PCN/SCN												
Rec Amount of the true value or spike added recovered, in % (except for LCSS, mg/kg) Relative Percent Difference, caculation used for Duplicate QC Types Upper Recovery Limit, in % (except for LCSS, mg/kg) Sample Value of the Sample of Interest LESWD Laboratory Control Sample - Water Duplicate ASD Analytical Spike (Post Digestion) Duplicate LFB Laboratory Control Sample - Water Duplicate CCB Continuing Calivation Blank CCB Continuing Calivation Verification standard LFM Laboratory Fortified Matrix CCV Consuling Calivation Verification standard LFM Laboratory Fortified Matrix Duplicate LRB Initial Calibration Blank MS Matrix Spike Duplicate Initial Calibration Blank MS Matrix Spike Duplicate Initial Calibration Standard - A plus B solutions RCSAB Laboratory Control Sample - Soil Publicate LCSS Laboratory Control Sample - Soil Duplicate LCSSU Laboratory Control Sample - Soil Duplicate RCSAB LCSS Laboratory Control Sample - Soil Duplicate LCSWD Laboratory Control Sample - Soil Duplicate RCSAB LCSSU Laboratory Control Sample - Soil Duplicate RCSAB LCSSU Laboratory Control Sample - Soil Duplicate LCSWD Laboratory Control Sample - Water SDL Serial Dilution North Spikes Fortified Matrix Determines sample matrix interferences if any. Standard Verifies the accuracy of the method, including the prep procedure. ACC Qualities Verifies the precision of the instrument and/or method. Poor spike recovery accepted because the other spike in the set fell within the given limits. Thigh Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL Analysis exceeded method hold time, pH is a field test with an immediate hold time. Poor spike recovery accepted because the other spike in the set fell within the given limits. Thigh Relative Percent Difference (RPD) accepted because single concentrations are less than 10x the MDL Analysis exceeded method hold time, pH is a field test with an immediate hold time. R Poor spike recovery is ce	PQL	PQL Practical Quantitation Limit, typically 5 times the MDL.											
Relative Percent Difference. calculation used for Duplicate QC Types Upper Recovery Limit, in % (except for LCSS, mg/Kg) Sample Upper Recovery Limit, in % (except for LCSS, mg/Kg) Sample Upper Recovery Limit, in % (except for LCSS, mg/Kg) Upper Recovery Limit, in % (except for LCSS, mg/Kg) Upper Recovery Limit, in % (except for LCSS, mg/Kg) Laboratory Control Sample - Water Duplicate LFB Laboratory Fortfied Blank LFM Laboratory Fortfied Blank LFM Laboratory Fortfied Blank LFM Laboratory Fortfied Matrix Duplicate UFMD Upper Percent Matrix Duplicate UFMD Upper Percent Blank UFMD Upper Reagent Blank Upper Reagent Blank UFMD Upper Reagent Blank Upper Re	QC		to the Spike										
Relative Percent Difference. calculation used for Duplicate QC Types Upper Recovery Limit, in % (except for LCSS, mg/Kg) Sample Upper Recovery Limit, in % (except for LCSS, mg/Kg) Sample Upper Recovery Limit, in % (except for LCSS, mg/Kg) Upper Recovery Limit, in % (except for LCSS, mg/Kg) Upper Recovery Limit, in % (except for LCSS, mg/Kg) Laboratory Control Sample - Water Duplicate LFB Laboratory Fortfied Blank LFM Laboratory Fortfied Blank LFM Laboratory Fortfied Blank LFM Laboratory Fortfied Matrix Duplicate UFMD Upper Percent Matrix Duplicate UFMD Upper Percent Blank UFMD Upper Reagent Blank Upper Reagent Blank UFMD Upper Reagent Blank Upper Re	Rec	Amount of the true value or spike added recovered, in %	(except for L	CSS, ma/Ka)									
Upper Upper Recovery Limit, in % (except for LCSS, mg/Kg) Sample Value of the Sample of Interest	RPD												
Sample Value of the Sample of Interest	Upper	•	7,										
ASD Analytical Spike (Post Digestion) LCSWD Laboratory Control Sample - Water Duplicate ASD Analytical Spike (Post Digestion) Duplicate LFB Laboratory Fortified Blank CCR Continuing Calibration Blank LFM Laboratory Fortified Matrix Duplicate LFM Laboratory Control Sample - Water LFM MSD Matrix Spike Duplicate LFM PFW President Films - Soil LFM PFW President PFW PFW President PFW President PFW PFW PFM PFM PFW PFM PFW PFM PFW PFM PFW	Sample												
ASD Analytical Spike (Post Digestion) Duplicate LFB Laboratory Fortified Blank CCB Continuing Calibration Blank LFM Laboratory Fortified Matrix CCV Continuing Calibration Blank LFMD Laboratory Fortified Matrix Duplicate DUP Sample Duplicate LRB Laboratory Fortified Matrix Duplicate Initial Calibration Verification standard MSD Matrix Spike Unitial Calibration Verification standard MSD Matrix Spike Unitial Calibration Verification standard MSD Matrix Spike Duplicate Initial Calibration Verification Standard - A plus B solutions PBS Prep Blank - Soil Initial Calibration Verification Standard - A plus B solutions PBS Prep Blank - Soil Inter-element Correction Standard - A plus B solutions PBS Prep Blank - Soil LCSB Laboratory Control Sample - Soil Duplicate PQV Practical Quantitation Verification standard LCSW Laboratory Control Sample - Soil Duplicate PQV Practical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution 2C Sample Type Explanations Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure. Verifies the taccuracy of the method, including the prep procedure. Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Verifies the validity of the calibration. Accidentifiers (Qua) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. Ph is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. Analyte excepted Decause sample concentration is 10 times higher than blank concentration W Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride. Quality control sample is out of control. Z Poor spike recovery accepted because sample concentration is four times greater	Of Casamata Ta	/pes											
CCB Continuing Calibration Blank	AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate									
CCV Continuing Calivation Verification standard DUP Sample Duplicate LRB Laboratory Reagent Blank ICB Initial Calibration Blank MS Matrix Spike ICV Initial Calibration Verification standard MSD Matrix Spike Duplicate LCSAB Inter-element Correction Standard - A plus B solutions PBS Prep Blank - Soil LCSS Laboratory Control Sample - Soil LCSS Laboratory Control Sample - Soil Duplicate PQV Precitical Quantitation Verification standard LCSW Laboratory Control Sample - Soil Duplicate PQV Precitical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution Serial Dilution Serial Dilution Control Samples Verifies that there is no or minimal contamination in the prep method or calibration procedure. Control Samples Verifies the accuracy of the method, including the prep procedure. Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. ACC Qualifiers Quali B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. pH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Silver quality control is accepted because silver othen precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery saccepted because sample concentration is four times greater than spike concentration. PRA 600/R-83-020. Methods for the Determination of Maters and Wastes, March 1983. (2) EPA 600/R-94-111. Methods for the Determination of Maters and Wastes, March 1983. (3) EPA 600/R-94-111. Methods for the Determination of Maters and Wastes, March 1983. (4) Cresu	ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank									
DUP Sample Duplicate	CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix									
Initial Calibration Blank I/CV Initial Calibration Plank I/CV Initial Calibration Plank Inter-element Correction Standard - A plus B solutions PBS Prep Blank - Soil Paper Standard - A plus B solutions PBS Prep Blank - Water Prep Blank - Water LCSSD Laboratory Control Sample - Soil Duplicate PQV Practical Quantitation Verification standard LCSW Laboratory Control Sample - Soil Duplicate PQV Practical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution Control Sample Type Explanations	CCV	Continuing Calivation Verification standard	LFMD	Laboratory Fortified Matrix Duplicate									
India Calibration Blank MS Matrix Spike India Calibration Verification Standard MSD Matrix Spike Duplicate India Calibration Verification Standard A plus B solutions PBS Prep Blank Soli	DUP	Sample Duplicate	LRB	Laboratory Reagent Blank									
Inter-element Correction Standard - A plus B solutions PBS Prep Blank - Soil LCSS Laboratory Control Sample - Soil PBW Prep Blank - Water Valver PGW Precical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution CC Sample Type Explanations Soil PBW Prep Blank - Water PGW Practical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution CC Sample Type Explanations Verifies that there is no or minimal contamination in the prep method or calibration procedure.	ICB	Initial Calibration Blank	MS										
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 Control Sample Type Explanations Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure. Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. ACZ Qualifiers (Qual) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. PH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. U Analyte was analyzed for but not detected at the indicated MDL V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. Filesthod References (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (3) EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995. Comments (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.	ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate									
LCSSD Laboratory Control Sample - Soil Duplicate PQV Practical Quantitation Verification standard LCSW Laboratory Control Sample - Water SDL Serial Dilution COR Sample Type Explanations Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure. Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. ACZ Qualifiers (Qual) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. PH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. U Analyte was analyzed for but not detected at the indicated MDL V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. Matriod References (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-110. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (3) EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (5) EPA SW-846. Test Methods for Evaluating Soild Waste, Third Edition with Update III, December 1996. (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.	ICSAB	inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil									
Control Sample Type Explanations	LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water									
Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure. Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. ACZ Qualifiers (Qual) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. pH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. U Analyte was analyzed for but not detected at the indicated MDL. V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. **Method References** (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (3) EPA 600/R-91-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (5) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995. **Conuments** (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations. Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.	LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard									
Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure. Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. ACZ Qualifiers (Qual) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. pH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. U Analyte was analyzed for but not detected at the indicated MDL V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Sliver quality control is accepted because Silver often precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. Method Reforences (1) EPA 600/R-93-100. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (3) EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996. (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995. Comments (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations. Soli, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.	LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution									
Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure. Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. ACZ Qualifiers (Qual) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. pH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. U Analyte was analyzed for but not detected at the indicated MDL V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Sliver quality control is accepted because Silver often precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. Method Reforences (1) EPA 600/R-93-100. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (3) EPA 600/R-93-100. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996. (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995. Comments (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations. Soli, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.	5.5	me Explanations											
Control Samples Verifies the accuracy of the method, including the prep procedure. Duplicates Verifies the precision of the instrument and/or method. Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. ACZ Qualifiers (Qual) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time, pH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. U Analyte was analyzed for but not detected at the indicated MDL. V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Sliver quality control is accepted because Sliver often precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. Method Reforences (1) EPA 600/R-93-100. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples - Supplement I, May 1994. (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996. (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995. Comments (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations. Soli, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.	*************************		nal contamina	tion in the area method or calibration procedure									
Duplicates Spikes/Fortified Matrix Determines sample matrix interferences, if any. Standard Verifies the validity of the calibration. AGZ Qualifiers (Qual) B Analyte concentration detected at a value between MDL and PQL. H Analysis exceeded method hold time. pH is a field test with an immediate hold time. R Poor spike recovery accepted because the other spike in the set fell within the given limits. T High Relative Percent Difference (RPD) accepted because sample concentrations are less than 10x the MDL. U Analyte was analyzed for but not detected at the indicated MDL V High blank data accepted because sample concentration is 10 times higher than blank concentration W Poor recovery for Silver quality control is accepted because Silver often precipitates with Chloride. X Quality control sample is out of control. Z Poor spike recovery is accepted because sample concentration is four times greater than spike concentration. Method References (1) EPA 600/R-93-100. Methods for Chemical Analysis of Water and Wastes, March 1983. (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994. (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996. (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995. Comments (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations. (2) Soli, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.				•									
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(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.	-011166-115												
		QC results calculated from raw data. Results may vary	slightly if the r	ounded values are used in the calculations.									
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.		Soil, Sludge, and Plant matrices for Inorganic analyses a	are reported or	n a dry weight basis.									
	(3)	Animal matrices for Inorganic analyses are reported on a	an "as receive	d" basis.									

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

			Marian Marian Company	entrario de la companya de la compa	Singlification was a		NAMES OF TAXABLE PARTY.	SOUND TO A PROPERTY OF THE SECOND			CONTRACTOR OF THE PARTY OF THE		
Alkalinity as Ca	СОЗ		SM2320	B - Titration						•			
ACZ IB	Type	Articlezad	PONISON	96	Sample	7.5	(File	Host	Lower	Upper	P.P.C	Limit	Onal
WG219893													
WG219893LCSW2	LCSW	01/31/07 19:42	WC070127-6	820		812.1	mg/L	99	80	120			
L60788-03DUP	DUP	01/31/07 22:01		020	U	U	mg/L	33	00	120	0	20	RA
WG219893LCSW5	LCSW	01/31/07 22:17	WC070127-6	820		828.5	mg/L	101	80	120	U	20	INA.
WG219893LCSW8	LCSW	02/01/07 0:49	WC070127-6	820		836.2	mg/L	102	80	120			
Calcium, dissol	ved		M200.7 I	CP			·····						
Alezz (a	177.2	Anglyzed	1.5	0.0		Found	Units		Loveer	Street	11111		Care
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	100		97.34	mg/L	97.3	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L	00	-0.6	0.6			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	67.95918		70.38	mg/L	103.6	85	115			
L60776-03AS	AS	01/21/07 3:45	11070119-5	67.95918	282	324.09	mg/L	61.9	85	115			M3
L60776-03ASD	ASD	01/21/07 3:49	11070119-5	67.95918	282	324.6 3	mg/L	62.7	85	115	0.17	20	M3
Chloride			M300.0 -	Ion Chroma	atograpi	 าy					···		
Acz (id	Type	A traffy was	PENSON	01	Sample	50.00	linic.	Ren	LOwer	Graner	100		Otrail
WG219654													
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	20		20.16	mg/L	100.8	90	440			
WG219654ICB	ICB	01/29/07 13:21		20		20.10 U	mg/L	100.6	-1.5	110			
WG219654LFB	LFB	01/29/07 13:40	IC061106-1	30		30.69	mg/L	102.3	90	1.5			
L60778-03DUP	DUP	01/29/07 18:29	.000.100.	00	47	47	mg/L	102.3	. 90	110	0	20	54
L60780-01AS	AS	01/29/07 19:06	IC061106-1	150	212	370.8	mg/L	105.9	90	110	U	20	RA
Fluoride			M300.0 -	Ion Chroma	tograph	ıy	***************************************	***************************************					
Aszub	Type	Applyzer	10000		Some	Found	Units	Rec	LONGO	Upper		Limit	Cital
WG219654													
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-0.3	0.3			
WG219654LFB	LFB	01/29/07 13:40	IC061106-1	1.5		1.56	mg/L	104	90	110			
L60778-03DUP	DUP	01/29/07 18:29			Ü	U	mg/L				0	20	RA
L60780-01AS	AS	01/29/07 19:06	IC061106-1	7.5	U	7.92	mg/L	105.6	90	110	v	2.0	101
Magnesium, dis	solved		M200.7 IC	CP									
ACZ ID	Турк	Assolvazeid		a p		Found	Units	P.C.	Lower	E BIRES	RPS	Limit	0.65
WG219469													
WG219469ICV	ICV	01/21/07 2:22	II061230-1	100		95.47	mg/L	95.5	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.6	0.6			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	54.98614		57.04	mg/L	103.7	-0.0 85	115			
L60776-03AS	AS	01/21/07 3:45	11070119-5	54.98614	49.8	98.34	mg/L	88.3	85	115			
L60776-03ASD	ASD	01/21/07 3:49	II070119-5	54.98614	49.8	101.44	mg/L	93.9	85	115	3.1	20	

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Nitrate/Nitrite as	s N, diss	olved	M353.2 -	- Automated	Cadmiu	m Reduc	tion						
1 e72 1 E	Type	malyradi		DI:	Sample		Urits	Res	Lower	Univers			Duel
WG219452													
WG219452ICV	ICV	01/19/07 20:35	WI061207-1	2.416		2.261	mg/L	93.6	90	110			
WG219452ICB	ICB	01/19/07 20:36				U	mg/L		-0.06	0.06			
WG219452LFB	LFB	01/19/07 20:40	WI060906-4	2		2.007	mg/L	100.4	90	110			
L60778-01AS	AS	01/19/07 20:42	WI060906-4	2	.07	2.126	mg/L	102.8	90	110			
L60778-02DUP	DUP	01/19/07 20:45			U	U	mg/L				0	20	RA
Nitrite as N, dis	solved		M353.2 -	Automated	Cadmiu	m Reduc	tion					***	
A974 (1)		Analyzad	51115111	0.6	Sample		I III.S	1.65	Lower	Upper	11.5	11	Carat
WG219452													
WG219452ICV	ICV	01/19/07 20:35	WI061207-1	.609		.608	mg/L	99.8	90	110			
WG219452ICB	ICB	01/19/07 20:36				U	mg/L		-0.03	0.03			
WG219452LFB	LFB	01/19/07 20:40	WI060906-4	1		.998	mg/L	99.8	90	110			
L60778-01AS	AS	01/19/07 20:42	WI060906-4	1	U	1.013	mg/L	101.3	90	110			
L60778-02DUP	DUP	01/19/07 20:45			U	U	mg/L				0	20	R/
Potassium, diss	olved		M200.7 I	CP							-		
At-Z ID	Type	10.000	1.0	0)6	Sample	FOREST		tea	Lower	Unper		L TOTAL	Qual
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	20		20.1	mg/L	100.5	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.9	0.9			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	99.51014		106.45	mg/L	107	85	115			
L60776-03AS	AS	01/21/07 3:45	11070119-5	99.51014	8.2	103.55	mg/L	95.8	85	115			
L60776-03ASD	ASD	01/21/07 3:49	11070119-5	99.51014	8.2	112.94	mg/L	105.3	85	115	8.67	20	
Residue, Filtera	ble (TDS	S) @180C	M160.1 -	Gravimetrio									
APZ ID	Type	Armyred E	100000000000000000000000000000000000000		Semple	Folgrad		Rec	Lower	Upper	RPD	Land	Card
WG219591													
WG219591PBW	PBW	01/24/07 10:50				U	mg/L		-20	20			
WG219591LCSW	LCSW	01/24/07 10:51	PCN26282	261		270	mg/L	103.4	80	120			
L60788-09DUP	DUP	01/24/07 11:05			2760	2756	mg/L				0.1	20	
Sodium, dissolv	/ed		M200.7 I	CP									***************************************
A(67Z)1B)		Analyzed		6 8	Series 15		unte	Flac		Liprer	RPD	Limit	Case
	Type												
WG219469	Type												
WG219469 WG219469ICV	Type	01/21/07 2:22	11061230-1	100		99.6	mg/L	99.6	95	105			
WG219469ICV			II061230-1	100		99.6 U	mg/L mg/L	99.6	95 -0.9	105 0.9			
WG219469ICV WG219469ICB	ICV	01/21/07 2:22	II061230-1 II070119-5	100 99.90786			mg/L mg/L mg/L	99.6 106.9					
	ICV ICB	01/21/07 2:22 01/21/07 2:26			22.8	U	mg/L		-0.9	0.9			

Inorganie QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sulfate			300.0 - lo	n Chroma	tography								
A \$72.18	Type	72.1		eje	Sample	Formul	Unite		Lower	LITTE:	TP I	Line (
WG219654													601
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	50		50.87	mg/L	101.7	90	110			
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-1.5	1.5			
WG219654LFB	LFB	01/29/07 13:40	IC061106-1	30		29.6	mg/L	98.7	90	110			
L60778-03DUP	DUP	01/29/07 18:29			558	554.7	mg/L				0.6	20	
L60780-01AS	AS	01/29/07 19:06	IC061106-1	150	140	295.6	mg/L	103.7	90	110			

2773 Downhill Drive Steamboat Springs, CO 80487

(800) 334-5493

Inorganic Extended Qualifier Report

ACZ Project ID: L60780

accurate evaluation (< 10x MDL).

Phelps Dodge Sierrita

Derenden Paradore L60780-01 WG219469 Calcium, dissolved M200.7 ICP M3 The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable. WG219654 Chloride M300.0 - ion Chromatography RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL). Fluoride M300.0 - Ion Chromatography RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL). WG219452 Nitrate/Nitrite as N, dissolved RA Relative Percent Difference (RPD) was not used for data M353.2 - Automated Cadmium Reduction validation because the sample concentration is too low for accurate evaluation (< 10x MDL). Nitrite as N, dissolved M353.2 - Automated Cadmium Relative Percent Difference (RPD) was not used for data Reduction validation because the sample concentration is too low for accurate evaluation (< 10x MDL). WG219893 Total Alkalinity SM2320B - Titration RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60780

No certification qualifiers associated with this analysis

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60780

Date Received:

1/19/2007

Received By:

Date Printed:

1/29/2007

Raschal Ventrection

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		Х
		X
		X
Χ		
Χ		
Χ		
Χ		
Χ		
Χ		
		X
		X
		Х
		X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
NA2842	2.1	13

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

Not est

Sample Receipt

Phelps Dodge Sierrita

ACZ Project ID:

L60780 1/19/2007

Date Received: Received By:

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60780-01	GW-509604-011807		Y	-						NESCONOMINA MARIEMANIA		
L60780-02	GW-509604-011807									X		i 🔲
Samula	ontainer Preservation Legen	ri)		1						

Abbreviation Description **Container Type** Preservative/Limits R Raw/Nitric RED pH must be < 2 В Filtered/Sulfuric BLUE pH must be < 2 BK Filtered/Nitric BLACK pH must be < 2 G Filtered/Nitric GREEN pH must be < 2 0 Raw/Sulfuric ORANGE pH must be < 2 Ρ Raw/NaOH **PURPLE** pH must be > 12 * Raw/NaOH Zinc Acetate Т TAN pH must be > 12 Raw/Sulfuric Υ YELLOW pH must be < 2 YG Raw/Sulfuric YELLOW GLASS pH must be < 2 N/A No preservative needed Not applicable RAD Gamma/Beta dose rate Not applicable must be $< 250 \mu R/hr$

Sample IDs Reviewed By:	
-------------------------	--

^{*} pH check performed by analyst prior to sample preparatior

29.10f2 L6078C

ACZ Laboratorie 2773 Downhill Drive Steamboat Springs, Co	e s, Inc. O 80487 (800) 334-	5493		CHAIN of CUSTODY					
Name: XIM (JAC) COMPANY: HIM M (JEO Chom E-mail: XIM (JO) HGC inc	v, Inc.	Address: 511 Telephone: 526		*kd #101 15 1x 123					
Copy of Report to: Name: Company:		E-mail:							
Invoice to:		Telephone:							
Name: Company: E-mail:		Address: Telephone:	Same as 1	Nove					
If sample(s) received past holding time (H' analysis before expiration, shall ACZ proc If "NO" then ACZ will contact client for furl is indicated, ACZ will proceed with the rec PROJECT INFORMATION	ceed with requested ther instruction. If n	short HT analyses? either "YES" nor "NO ven if HT is expired, a)" and data will be qu						
Quote #: Sicrita Short Project/P0 #: Tl301.1 Reporting state for compliance testing: Sampler's Name: Km Qurciu Are any samples NRC licensable material?	NA Vo STIME Matrix	# of Containers	C)	Har James Marineri)					
GW-509404-011607 1/18/0	7 1015 GW	IX	501	690 31.4					
Matrix SW (Surface Water) - GW (Ground Water) - V	WW (Waste Water) - DW (Dr	inking Water) · St. (Sludge) ·	SO (Soil) · OL (Oil) · Other	(Specify)					
Supate The Please refer to ACZ's to)	cated on the reverse	oido of this COO						
RELINQUISHED BY:	DATE:TIME	RECEIVE	deserted the second of the sec	DATE:TIME					

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

FRMAD050.03.05.02

ACZ Laboratories, Inc. CUSTODY 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 Report to: 51W. Wetmore Rd #101 Kim Coarcia Name: Holdro (Teo Cham, Inc. €5705 Company: E-mail: KimG@ HGCinc. com 520-293 · 1500× · 123 Telephone: Copy of Report to: Name: E-mail: Telephone: Company: Invoice to: Name: Address: Company: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. ANALYSES REQUESTED (attach list or use quote number). PROJECT INFORMATION Quote #: Project/PO #: Reporting state for compliance testing: Sampler's Name: * Are any samples NRC licensable material? SAMPLE IDENTIFICATION DATE:TIME Matrix 1016 GW SW (Surface Water) - GW (Ground Water) - WW (Waste Water) - DW (Drinking Water) - SL (Sludge) - SO (Soil) - OL (Oil) - Other (Specify) REMARKS Please refer to ACZ's terms & conditions located on the reverse side of this COC. RELINQUISHED BY: DATE:TIME RECEIVED BY: DATE:TIME

FRMAD050.03.05.02

White - Return with sample.

Yellow - Retain for your records.

9:40

February 01, 2007

Report to:

Bill Dorris

Phelps Dodge Sierrita

P.O. Box 527

Green Valley, AZ 85622-0527

cc: Jim Norris

Project ID: OJ00XN ACZ Project ID: L60766

Bill Dorris:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 18, 2007. This project has been assigned to ACZ's project number, L60766. Please reference this number in all future inquiries.

Bill to:

Accounts Pavable

P.O. Box 2671

Phelps Dodge Sierrita

Phoenix, AZ 85002-2671

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60766. 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 March 01, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

01/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-634036-011707

ACZ Sample ID: L60766-01

Date Sampled:

01/17/07 12:01

Date Received:

01/18/07

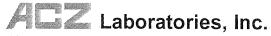
Sample Matrix: Ground Water

			Kapa garlangan percentar in C	e e commentario de la commentario della commenta					and the second
Metals Analysis									
Farameter	EPA Method	Result	Oual	T.C	Units	MEL	POL	Derive	Analysi
Calcium, dissolved	M200.7 ICP	63.0			mg/L	0.2	1	01/29/07 19:31	msh
Magnesium, dissolved	M200.7 ICP	11.2		*	mg/L	0.2	1	01/29/07 19:31	msh
Potassium, dissolved	M200.7 ICP	1.6	В	*	mg/L	0.3	2	01/29/07 19:31	msh
Sodium, dissolved	M200.7 ICP	26.8		*	mg/L	0.3	2	01/29/07 19:31	msh
Wet Chemistry									
Parameter	EPA Method	Fast		770		Miol	POL	Date	Analysis
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		157			mg/L	2	20	01/31/07 0:00	cas
Carbonate as CaCO3	3	5	В		mg/L	. 2	20	01/31/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/31/07 0:00	cas
Total Alkalinity		161		*	mg/L	2	20	01/31/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		4.0			%			02/01/07 14:53	calc
Sum of Anions		4.8			meq/L	0.1	0.5	02/01/07 14:53	calc
Sum of Cations		5.2			meq/L	0.1	0.5	02/01/07 14:53	calc
Chloride	M300.0 - Ion Chromatography	8.1			mg/L	0.5	3	01/29/07 14:34	nps
Fluoride	M300.0 - Ion Chromatography	0.1	В	*	mg/L	0.1	0.5	01/29/07 14:34	nps
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	0.25			mg/L	0.02	0.1	02/01/07 14:53	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.25		*	mg/L	0.02	0.1	01/18/07 19:50	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/18/07 19:50	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	310		*	mg/L	10	20	01/23/07 10:18	Icp
Sulfate	300.0 - Ion Chromatography	64.8			mg/L	0.5	3	01/29/07 14:34	nps
TDS (calculated)	Calculation	276			mg/L	10	50	02/01/07 14:53	calc
TDS (ratio -	Calculation	1.12						02/01/07 14:53	calc

Arizona license number: AZ0102

measured/calculated)

L60766: Page 2 of 13



2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-634036-011707

ACZ Sample ID: *L60766-02*

Date Sampled:

01/17/07 12:00

Date Received:

01/18/07

Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	F 6 21414	G119 (60)	Units	MDL	POL	Distre 4	
Sulfate	300.0 - Ion Chromatography	65.1		mg/L	0.5	3	01/29/07 15:10	nps

Arizona license number: AZ0102

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

,	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)	Limeth Allerine for	a transfer constant and the second se
MDL	Method Detection Limit. Same as Minimum Reporting		
PCN/SCN PQL		ie manuracturer	s certificate of analysis
QC QC	Practical Quantitation Limit, typically 5 times the MDL.	to the Chiles	
Rec	True Value of the Control Sample or the amount added Amount of the true value or spike added recovered, in 9	•	CCC malka)
RPD	Relative Percent Difference, calculation used for Duplic	` '	,55, Hg/kg)
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)	ate QC Types	
Sample	Value of the Sample of interest		
,			
	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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
	pe Explanations		
Blanks			on in the prep method or calibration procedure.
Control Sa	•	-	, , ,
Duplicates	Verifies the precision of the ins		
Standard	tified Matrix Determines sample matrix inte Verifies the validity of the calib		<i>.</i>
	-	ration.	
A est enquilitere	; (8[pp])	100	
В	Analyte concentration detected at a value between MDI	L and PQL.	
Н .	Analysis exceeded method hold time. pH is a field test	with an immedia	ate hold time.
R	Poor spike recovery accepted because the other spike	in the set fell wi	thin the given limits.
Τ	High Relative Percent Difference (RPD) accepted beca	use sample con-	centrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicate	ted MDL	
V	High blank data accepted because sample concentration	on is 10 times hi	gher than blank concentration
W	Poor recovery for Silver quality control is accepted beca	ause Silver ofter	n precipitates with Chloride.
X	Quality control sample is out of control.		
Z	Poor spike recovery is accepted because sample conce	entration is four	times greater than spike concentration.
	mores		
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of V	Water and Wast	es March 1983
(2)	EPA 600/R-93-100. Methods for the Determination of I		
(3)	EPA 600/R-94-111. Methods for the Determination of N		
(5)	EPA SW-846. Test Methods for Evaluating Solid Wasti		•
(6)	Standard Methods for the Examination of Water and Wa		•
	•	,	
Commence			
(1)	QC results calculated from raw data. Results may vary		
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses	•	, ,
(3)		on loc received	III boolo
V-7	Animal matrices for Inorganic analyses are reported on	an as received	basis.

REPIN03.11.00.01

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID: L60766

Alkalinity as Cac	СОЗ		SM2320	B - Titration								overnova en o	
A62/(B	Me	Analyzad	PONSON	ec	Sample		Units		DAN	Upper	1111	Linit	Ohai
WG219893													
WG219893LCSW2	LCSW	01/31/07 19:42	WC070127-6	820		812,1	mg/L	99	80	120			
L60776-02DUP	DUP	01/31/07 21:02			U	U	mg/L				0	20	RA
WG219893LCSW5	LCSW	01/31/07 22:17	WC070127-6	820		828.5	mg/L	101	80	120			
WG219893LCSW8	LCSW	02/01/07 0:49	WC070127-6	820		836.2	mg/L	102	80	120			
Calcium, dissolv	ed .		M200.7 I	CP							***************************************		
ASZIB	7716	Analyzed	PROMEON	6)6	Sample	Found	Units	To a	Lower	Jogen	FIFE	iril	Ottal
WG219705													
WG219705ICV	ICV	01/29/07 18:20	11061230-1	100		98.19	mg/L	98.2	95	105			
WG219705ICB	ICB	01/29/07 18:24				U	mg/L		-0.6	0.6			
WG219705LFB	LFB	01/29/07 18:40	11070119-5	67.95918		72.84	mg/L	107.2	85	115			
L60749-01AS	AS	01/29/07 18:48	11070119-5	67.95918	316	380.56	mg/L	95	85	115			
L60749-01ASD	ASD	01/29/07 18:51	11070119-5	67.95918	316	390.48	mg/L	109.6	85	115	2.57	20	
Chloride			M300.0 -	Ion Chroma	atograph	ıy						***************************************	
ACZ ID	Type	2,190 (22,00)		οE	Second	501114	Linus		Lover	Shiper			Cleral
WG219654													
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	20		20.16	mg/L	100.8	90	110			
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-1.5	1.5			
WG219654LFB	LFB	01/29/07 13:40	IC061106-1	30		30.69	mg/L	102.3	90	110			
L60647-02DUP	DUP	01/29/07 14:16			23	23.1	mg/L				0.4	20	
L60766-01AS	AS	01/29/07 14:52	IC061106-1	30	8.1	38.6	mg/L	101.7	90	110			
Fluoride			M300.0 -	Ion Chroma	atograph	ıy				***************************************			
ACZ III	10,778	Analyzed	PONSCR		Sample	Found			Lower	Upper		Linn)	0.001
WG219654													
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-0.3	0.3			
WG219654LFB	LFB	01/29/07 13:40	IC061106-1	1.5		1.56	mg/L	104	90	110			
L60647-02DUP	DUP	01/29/07 14:16			.3	.3	mg/L				0	20	RA
L60766-01AS	AS	01/29/07 14:52	IC061106-1	1.5	.1	1.68	mg/L	105.3	90	110			
Magnesium, diss	olved		M200.7 I	CP									
ACZ II	Type	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	FIRMSTEIN	218	Sample	Found	Units	Rec	Literatur	Upper		Ti i	0.15
WG219705													
WG219705ICV	ICV	01/29/07 18:20	11061230-1	100		96.97	mg/L	97	95	105			
WG219705ICB	ICB	01/29/07 18:24				U	mg/L		-0.6	0.6			
WG219705LFB	LFB	01/29/07 18:40	11070119-5	54.98614		59.05	mg/L	107.4	85	115			
L60749-01AS	AS	01/29/07 18:48	11070119-5	54.98614	104	165.3	mg/L	111.5	85	115			
L60749-01ASD	ASD	01/29/07 18:51	II070119-5	54.98614	104	170.48	mg/L	120.9	85	115	3.09	20	MA

REPIN.01.06.05.01

L60766: Page 5 of 13

Inorganic QC Summany

Phelps Dodge Sierrita

Project ID:

OJ00XN

Nitrate/Nitrite a	s N, diss	solved	M353.2	- Automated	Cadmiu	ım Reduc	tion						
55.74	T	Assolivated	PENERGO			e de la companya de	Units	Rec		i jagosti	11.77	Lind	Cital
WG219413													
WG219413ICV	ICV	01/18/07 19:16	WI061207-1	2.416		2.346	mg/L	97.1	90	110			
WG219413ICB	ICB	01/18/07 19:18				U	mg/L		-0.06	0.06			
WG219413LFB	LFB	01/18/07 19:21	WI060906-4	2		1.985	mg/L	99.3	90	110			
L60761-04AS	AS	01/18/07 19:42	WI060906-4	2	U	2.004	mg/L	100.2	90	110			
L60761-05DUP	DUP	01/18/07 19:44			U	U	mg/L				0	20	RA
Nitrite as N, dis	solved		M353.2	- Automated (Cadmiu	ım Reduc	tion						
ACZ ID	Para	Assalyzat	Postson	<u>C</u> IC	Samuel	Found			200	Univer		200	
WG219413													
WG219413ICV	ICV	01/18/07 19:16	WI061207-1	.609		.623	mg/L	102.3	90	110			
WG219413ICB	ICB	01/18/07 19:18				U	mg/L		-0.03	0.03			
WG219413LFB	LFB	01/18/07 19:21	WI060906-4	1		1.014	mg/L	101.4	90	110			
L60761-04AS	AS	01/18/07 19:42	WI060906-4	1	U	1.015	mg/L	101.5	90	110			
L60761-05DUP	DUP	01/18/07 19:44			U	U	mg/L				0	20	RA
Potassium, dis	solved		M200.7	CP									
AC7 10	1712	Analyzed	PENSON	ĐC	Sami		DETECT.		Louis	ipper		Length	10.75
WG219705													
WG219705ICV	ICV	01/29/07 18:20	11061230-1	20		20.14	mg/L	100.7	95	105			
WG219705ICB	ICB	01/29/07 18:24				υ	mg/L		-0.9	0.9			
WG219705LFB	LFB	01/29/07 18:40	11070119-5	99.51014		109.07	mg/L	109.6	85	115			
L60749-01AS	AS	01/29/07 18:48	11070119-5	99.51014	5.7	123.26	mg/L	118.1	85	115			M1
L60749-01ASD	ASD	01/29/07 18:51	11070119-5	99.51014	5.7	126.51	mg/L	121.4	85	115	2.6	20	M1
Residue, Filtera	ble (TD:	S) @180C	M160.1 -	Gravimetric		·						***************************************	***************************************
ACZ ID	Турге	Analyszad	PCAVSCA	616		-01111	li de	Ret	Lorent	Displai	RPB	Limit	Direil
WG219531													
WG219531PBW	PBW	01/23/07 10:00				10	mg/L		-20	20			
WG219531LCSW	LCSW	01/23/07 10:01	PCN26282	261		284	mg/L	108.8	80	120			
L60797-05DUP	DUP	01/23/07 10:29			60	64	mg/L				6.5	20	RA
Sodium, dissol	ved		M200.7 I	CP									
ACZ IB	Tyres	Assessment	Permission	00	Samuela	Fastad	Lin ii	Fee	T.		777	Limit	Tial.
WG219705													
WG219705ICV	ICV	01/29/07 18:20	11061230-1	100		99.96	mg/L	100	95	105			
WG219705ICB	ICB	01/29/07 18:24		-		U	mg/L	.50	- 6	6			
WG219705ICB	ICB	01/29/07 18:24				U	mg/L		-0.9	0.9			
WG219705LFB	LFB	01/29/07 18:40	11070119-5	99.90786		109.07	mg/L	109.2	85	115			
L60749-01AS	AS	01/29/07 18:48	11070119-5	99.90786	144	255.71	mg/L	111.8	85	115			
L60749-01ASD	ASD	01/29/07 18:51	11070119-5	99.90786	144	264.82	mg/L	120.9	85	115	3.5	20	MA

Inorganie QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID: L60766

Sulfate			300.0 - Io	n Chroma	tography							
. (97	Type	Arreliyzed	FINISTER	EIC	Sample	Found	Units	Rec	LOwer	Upper	717.12	Listit Onel
WG219654												
WG219654ICV	ICV	01/29/07 13:03	IC070104-1	50		50.87	mg/L	101.7	90	110		
WG219654ICB	ICB	01/29/07 13:21				U	mg/L		-1.5	1.5		
WG219654LFB	LFB	01/29/07 13:40	IC061106-1	30		29.6	mg/L	98.7	90	110		
L60647-02DUP	DUP	01/29/07 14:16			103	103.3	mg/L				0.3	20
L60766-01AS	AS	01/29/07 14:52	IC061106-1	30	64.8	93.06	mg/L	94.2	90	110		

REPIN.01.06.05.01

L60766: Page 7 of 13

Inorganic Extended Qualifier Report

ACZ Project ID: L60766

Phelps Dodge Sierrita

Car Ser 152	200/2004			50015 pt 12.000	
167/11	Motelland	PARAMETER	METHOD	CHIAL	DESCRIPTION
L60766-01	WG219705	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219654	Fluoride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219413	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219531	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219893	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

L60766: Page 8 of 13

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60766

No certification qualifiers associated with this analysis

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60766

Date Received:

17

1/18/2007

Received By:

Date Printed:

1/29/2007

Receipt Certification

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		Х
		X.
		Х
Х		
X		
Х		
X		
Х	11.50	
Х		
		Х
		X
	×	Х
		X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Simpling Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
NA2837	2.7	12

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

Hales,

Sample Receipt

Phelps Dodge Sierrita

ACZ Project ID:

L60766 1/18/2007

Date Received:

Received By:

	Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	YG<2			N/A	RAD	ID
L60766-01	GW-634036-011707		Y			****	MSQ Orion Tourney			
L60766-02	GW-634036-011707						 	X		
					1		I	,	1	

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
Р	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

^{*} pH check performed by analyst prior to sample preparatior

Sample IDs Revie	wed By:		

Laboratories, Inc. CHAIN of CUSTODY 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 Report to: Address: Name: Company Telephone: E-mail: Copy of Report to: E-mail: Name: Telephone: Company: Invoice to: Address: Name: Company: Telephone: E-mail: If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. ANALYSES REQUESTED (attach list or use quote number) PROJECT INFORMATION Quote #: of Containers Project/PO #: Reporting state for compliance testing Sampler's Name: Are any samples NRC licensable material? SAMPLE IDENTIFICATION DATE:TIME Matrix Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify) REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
1//	1/17/07/530	Mess	1.18.07
T X			10:24
V			

Laboratories, Inc. CHAIN of CUSTODY 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 Report to Address: Name: Company HGCinc.com Telephone: E-mail: Copy of Report to: E-mail: Name: Telephone: Company: Invoice to: Address: Name: Company: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. ANALYSES REQUESTED (attach list or use quote number) PROJECT INFORMATION Quote #: of Containers Project/PO #: Reporting state for compliance testing: Sampler's Name: Are any samples NRO licensable material? SAMPLE IDENTIFICATION DATE:TIME Matrix

Reporting state for compliance testing:

Sampler's Name:

Are any samples NRC licensable material?

SAMPLE IDENTIFICATION

DATE:TIME

Matrix

Matrix

SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · Other (Specify)

Supatu mel

REMARKS

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Wish .	V17/07/530		11.18.07
			10.24

January 30, 2007

Report to:

Bill Dorris

Phelps Dodge Sierrita

P.O. Box 527

Green Valley, AZ 85622-0527

cc: Jim Norris

Project ID: OJ00XN ACZ Project ID: L60731

Bill Dorris:

Bill to:

Accounts Payable Phelps Dodge Sierrita P.O. Box 2671

Phoenix, AZ 85002-2671

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 16, 2007. This project has been assigned to ACZ's project number, L60731. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60731. 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 February 28, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

S. Habermahl

31/Jan/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-501760-011507

ACZ Sample ID:

L60731-01

Date Sampled:

01/15/07 12:06

Date Received:

01/16/07

Sample Matrix:

Ground Water

Metals Analysis									
Parameter	EPA Method	Result	Qual	ΧQ	Units	MDL	7.6	Drake	Amalyst
Calcium, dissolved	M200.7 ICP	93.5			mg/L	0.2	1	01/17/07 23:32	gme
Magnesium, dissolved	M200.7 ICP	15.0			mg/L	0.2	1	01/17/07 23:32	gme
Potassium, dissolved	M200.7 ICP	4.1			mg/L	0.3	2	01/17/07 23:32	gme
Sodium, dissolved	M200.7 ICP	43.0			mg/L	0.3	2	01/17/07 23:32	gme
Wet Chemistry									ė
Parameter	EPA Method	Result	Gual	ЖO	Units	MDL	FOL	Date	
Alkalinity as CaCO3	SM2320B - Titration			0111110					
Bicarbonate as CaCO3		191			mg/L	2	20	01/25/07 0:00	cas
Carbonate as CaCO3	į		U		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		191		2	mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		0.0			%			01/30/07 10:29	calc
Sum of Anions		7.9			meq/L	0.1	0.5	01/30/07 10:29	calc
Sum of Cations		7.9			meq/L	0.1	0.5	01/30/07 10:29	calc
Chloride	M300.0 - Ion Chromatography	33.9			mg/L	0.5	3	01/19/07 2:08	nps
Fluoride	M300.0 - Ion Chromatography	0.3	В	*	mg/L	0.1	0.5	01/19/07 2:08	nps
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	5.37			mg/L	0.04	0.2	01/30/07 10:29	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	5.37			mg/L	0.04	0.2	01/16/07 21:59	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/16/07 21:30	pjb
Residue, Filterable	M160.1 - Gravimetric	480			mg/L	10	20	01/17/07 10:58	icp

133

461

1.04

Arizona license number: AZ0102

300.0 - Ion Chromatography

Calculation

Calculation

(TDS) @180C Sulfate

TDS (calculated)

measured/calculated)

TDS (ratio -

5

50

1

10

01/19/07 16:46

01/30/07 10:29

01/30/07 10:29

nps

calc

calc

mg/L

mg/L

L60731: Page 2 of 13



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-501760-011507

ACZ Sample ID: L60731-02

Date Sampled:

01/15/07 12:05

Date Received:

01/16/07

Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	Result 6	iual XQ - Units	MDL	Pol	Date A	naly si
Sulfate	300.0 - Ion Chromatography	135	mg/L	1	5	01/19/07 17:05	nps

Arizona license number: AZ0102

REPIN.02.06.05.01

L60731: Page 3 of 13

Inorganic Reference

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report Heade	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 L	imit. Allows fo	or instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the	e manufacture	r's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		
QC	True Value of the Control Sample or the amount added t	to the Spike	
Rec	Amount of the true value or spike added recovered, in $\%$	(except for Lo	CSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplica	ite QC Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
	pes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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
***************************************	pe Explanations		
Blanks	· · · · · · · · · · · · · · · · · · ·		ion in the prep method or calibration procedure.
Control Sar			• • •
Duplicates	Verifies the precision of the insti		
Spikes/Fon Standard	tified Matrix Determines sample matrix interfive Verifies the validity of the calibration.		y.
		auon.	·
- 972 6 17:	(Qual)		
В	Analyte concentration detected at a value between MDL	and PQL.	
Н	Analysis exceeded method hold time. pH is a field test v		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
R	Poor spike recovery accepted because the other spike in		
T	High Relative Percent Difference (RPD) accepted becau		ncentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicate		
V	High blank data accepted because sample concentration		
W	Poor recovery for Silver quality control is accepted becau	use Silver ofter	n precipitates with Chloride.
×	Quality control sample is out of control.		
Z	Poor spike recovery is accepted because sample concer	ntration is four	times greater than spike concentration.
Medical Refere	nces		
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of W	ater and Wast	tes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of In		
(3)	EPA 600/R-94-111. Methods for the Determination of M		
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste,		
(6)	Standard Methods for the Examination of Water and Was		•
Comments			
(1)	QC results calculated from raw data. Results may vary s	sliahtly if the ro	ounded values are used in the calculations
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses a		
(3)	Animal matrices for Inorganic analyses are reported on a	•	, ,
	÷ , , , , , , , , , , , , , , , , , , ,		

REPIN03.11.00.01

L60731: Page 4 of 13

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Alkalinity as Ca	CO3		SM2320E	3 - Titration			Societis (II e el Million (II)				GENERAL SERVICE	
AGZ (B	Type	Analyzed	PENNIN	0.5	Sample	Found	Units		LOwer	Line	RPD	Cont.
WG219648												
WG219648LCSW2	LCSW	01/25/07 16:04	WC061230-1	820		808.8	mg/L	98.6	80	120		
L60734-04DUP	DUP	01/25/07 19:06			261	261.1	mg/L				0	20
WG219648LCSW5	LCSW	01/25/07 19:19	WC061230-1	820		812	mg/L	99	80	120		
WG219648LCSW8	LCSW	01/25/07 22:26	WC061230-1	820		820.3	mg/L	100	-80	120		
Calcium, dissolv	ved		M200.7 I	CP	···········							
AC7 ID	1900	Analyzed		5 6		File			- 0.00		Title	Limit Cont
WG219358												
WG219358ICV	ICV	01/17/07 23:08	11061218-6	100		96.96	mg/L	97	95	105		
WG219358ICB	ICB	01/17/07 23:12				U	mg/L		-0.6	0.6		
WG219358LFB	LFB	01/17/07 23:28	11070117-2	67.95918		69.08	mg/L	101.6	85	115		
L60731-01AS	AS	01/17/07 23:36	11070117-2	67.95918	93.5	159.45	mg/L	97	85	115		
L60731-01ASD	ASD	01/17/07 23:40	11070117-2	67.95918	93.5	160.05	mg/L	97.9	85	115	0.38	20
Chloride			M300.0 -	Ion Chroma	itograph	ıy						
ACZ ID	193	Analyzed	Pleasingers			CHIE	Links	161	Lower	Super	RPB	Limit Otto
WG219171												
WG219171ICV	ICV	01/11/07 18:07	IC070104-1	20		20.21	mg/L	101.1	90	110		
WG219171ICB	ICB	01/11/07 18:25				U	mg/L		-1.5	1.5		
WG219171ICV1	ICV	01/12/07 12:38	IC070104-1	20		20.17	mg/L	100.9	90	110		
WG219171ICB1	ICB	01/12/07 12:56				U	mg/L		-1.5	1.5		
WG219373												
WG219373ICV	ICV	01/11/07 18:07	IC070104-1	20		20.21	mg/L	101.1	90	110		
WG219373ICB	ICB	01/11/07 18:25				U	mg/L		-1.5	1.5		
WG219373ICV1	ICV	01/18/07 13:27	IC070104-1	20		20.27	mg/L	101.4	90	110		
WG219373ICB1	ICB	01/18/07 13:45				U	mg/L		-1.5	1.5		
WG219373LFB1	LFB	01/18/07 14:03	IC061106-1	30		30.14	mg/L	100.5	90	110		
WG219373LFB2	LFB	01/18/07 22:49	IC061106-1	30		29.99	mg/L	100	90	110		
L60693-01DUP	DUP	01/18/07 23:25			43.4	43.33	mg/L				0.2	20
L60693-02AS	AS	01/19/07 0:01	IC061106-1	30	7.3	36.79	mg/L	98.3	90	110		

Phelps Dodge Sierrita

Project ID:

OJ00XN

Fluoride			M300.0 -	- Ion Chroma	atograpl	ny							
ACZ ID	Type:	Analyzad	PONSON	Ole		Found	Inte	Rec	Concr	i poper	FIFT.	Linail	District
WG219171													
WG219171ICV	ICV	01/11/07 18:07	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219171ICB	ICB	01/11/07 18:25				U .	mg/L		-0.3	0.3			
WG219171ICV1	ICV	01/12/07 12:38	IC070104-1	3.992		3.99	mg/L	99.9	90	110			
WG219171ICB1	ICB	01/12/07 12:56				U	mg/L		-0.3	0.3			
WG219373													
WG219373ICV	ICV	01/11/07 18:07	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219373ICB	ICB	01/11/07 18:25				U	mg/L		-0.3	0.3			
WG219373ICV1	ICV	01/18/07 13:27	IC070104-1	3.992		4.12	mg/L	103.2	90	110			
WG219373ICB1	ICB	01/18/07 13:45				U	mg/L		-0.3	0.3			
WG219373LFB1	LFB	01/18/07 14:03	IC061106-1	1.5		1.55	mg/L	103.3	90	110			
WG219373LFB2	LFB	01/18/07 22:49	IC061106-1	1.5		1.53	mg/L	102	90	110			
L60693-01DUP	DUP	01/18/07 23:25			.5	.46	mg/L				8.3	20	RA
L60693-02AS	AS	01/19/07 0:01	IC061106-1	1.5	3	1.84	mg/L	102.7	90	110			
Magnesium, dis	solved		M200.7 J	CP	***************************************		***************************************						•
ACZ ID	Type	Aualyzed	POWSON	ØC	Sample	Found	Units		1.00	Japan			6112
WG219358													
WG219358ICV	ICV	01/17/07 23:08	11061218-6	100		94.71	mg/L	94.7	95	105			
WG219358ICB	ICB	01/17/07 23:12				U	mg/L		-0.6	0.6			
WG219358LFB	LFB	01/17/07 23:28	11070117-2	54.98614		55.01	mg/L	100	85	115			
L60731-01AS	AS	01/17/07 23:36	11070117-2	54.98614	15	71.08	mg/L	102	85	115			
L60731-01ASD	ASD	01/17/07 23:40	11070117-2	54.98614	15	72.09	mg/L	103.8	85	115	1.41	20	
Nitrate/Nitrite a	s N, diss	solved	M353.2 -	- Automated	Cadmiu	ım Reduc	tion						
APZ II	Tyru	Amplyzod	FIGURES	Đβ	Samuel	Patrice	Units	8.00	Lower		RPD	Limit	Otrai
WG219307													
WG219307ICV	ICV	01/16/07 20:48	WI061207-1	2.416		2.417	mg/L	100	90	110			
WG219307ICB	ICB	01/16/07 20:49				U	mg/L		-0.06	0.06			
WG219307LFB1	LFB	01/16/07 20:53	WI060906-4	2		1.967	mg/L	98.4	90	110			
L60723-02AS	AS	01/16/07 21:15	WI060906-4	40	2.3	39.5	mg/L	93	90	110			
WG219307LFB2	LFB	01/16/07 21:32	WI060906-4	2		2.023	mg/L	101.2	90	110			
L60734-03DUP	DUP	01/16/07 21:41			.43	.464	mg/L				7.6	20	
Nitrite as N, dis	solved		M353.2 -	Automated	Cadmiu	m Reduc	tion						
A07 ()	Types	Armiyani	SCHESCH	QC .	Sample	Found	their:	Rec	Lower	Upper	RPD	Limit	Orial
WG219307													
WG219307ICV	ICV .	01/16/07 20:48	WI061207-1	.609		.61	mg/L	100.2	90	110			
WG219307ICB	ICB	01/16/07 20:49				U	mg/L	100.2	-0.03	0.03			
WG219307LFB1	LFB	01/16/07 20:53	WI060906-4	1		.969	mg/L	96.9	90	110			
L60723-02AS	AS	01/16/07 21:15	WI060906-4	20	U	20.37	mg/L	101.9	90	110			
WG219307LFB2	LFB	01/16/07 21:32	WI060906-4	1	~	1.005	mg/L	100.5	90	110			
L60734-03DUP	DUP	01/16/07 21:41		•		U	mg/L		30		0	20	RA

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Potassium, dis	solved		M200.7	ICP				***************************************				
AC 7 (1)		1917	PONISON	100	Salmale	10200	Units	Tiz.		Opper	7.7	Limit Que
WG219358												
WG219358ICV	ICV	01/17/07 23:08	11061218-6	20		20.11	mg/L	100.6	95	105		
WG219358ICB	ICB	01/17/07 23:12				U	mg/L	100.0	-0.9	0.9		
WG219358LFB	LFB	01/17/07 23:28	11070117-2	99.51014		103.29	mg/L	103.8	85	115		
L60731-01AS	AS	01/17/07 23:36	11070117-2	99.51014	4.1	113.9	mg/L	110.3	85	115		
L60731-01ASD	ASD	01/17/07 23:40	11070117-2	99.51014	4.1	117.06	mg/L	113.5	85	115	2.74	20
Residue, Filtera	able (TD:	S) @180C	M160.1	- Gravimetrio	;			***************************************				
A67 ID	Type	Analyzei	P () ()	0.0	Sample	Foland	Units	Ren	Lawer	Upper	7.7	Limit Cha
WG219324												
WG219324PBW	PBW	01/17/07 10:30				U	mg/L		-20	20		
WG219324LCSW	LCSW	01/17/07 10:31	PCN26278	261		298	mg/L	114.2	80	120		
L60731-01DUP	DUP	01/17/07 10:59			480	490	mg/L				2.1	20
Sodium, dissolv	ved	*************************************	M200.7	ICP							1	
A272 B	Тура	Armiyza	POMSON	9,0		Fourt		Rev	Listing	Upper		Limit Ossi
WG219358											***************************************	
WG219358ICV	ICV	01/17/07 23:08	11061218-6	100		99.03	mg/L	99	95	105		
WG219358ICB	ICB	01/17/07 23:12				U	mg/L		-0.9	0.9		
WG219358LFB	LFB	01/17/07 23:28	11070117-2	99.90786		102.01	mg/L	102.1	85	115		
L60731-01AS	AS	01/17/07 23:36	11070117-2	99.90786	43	147.19	mg/L	104.3	85	115		
L60731-01ASD	ASD	01/17/07 23:40	11070117-2	99.90786	43	149.59	mg/L	106.7	85	115	1.62	20
Sulfate			300.0 - 1	on Chromato	graphy	***************************************						
ACZ ID	Туро	Analyzed		ajv.	Sample	Found	Units	7.61	Loren	Ligarer		Circle
WG219171								,				
WG219171ICV	ICV	01/11/07 18:07	IC070104-1	50		50.74	mg/L	101.5	90	110		
WG219171ICB	ICB	01/11/07 18:25				U	mg/L	70 7.0	-1.5	1.5		
WG219171ICV1	ICV	01/12/07 12:38	IC070104-1	50		50.79	mg/L	101.6	90	110		
WG219171ICB1	ICB	01/12/07 12:56				U	mg/L		-1.5	1.5		
WG219373												
WG219373ICV	ICV	01/11/07 18:07	IC070104-1	50		50.74	mg/L	101.5	90	110		
WG219373ICB	ICB	01/11/07 18:25				U	mg/L		-1.5	1.5		
WG219373ICV1	ICV	01/18/07 13:27	IC070104-1	50		51.49	mg/L	103	90	110		
WG219373ICB1	ICB	01/18/07 13:45				U	mg/L		-1.5	1.5		
WG219373LFB1	LFB	01/18/07 14:03	IC061106-1	30		30.25	mg/L	100.8	90	110		
WG219373LFB2	LFB	01/18/07 22:49	IC061106-1	30		29.58	mg/L	98.6	90	110		
L60693-02AS	AS	01/19/07 0:01	IC061106-1	30	3.6	33.3	mg/L	99	90	110		
L60693-01DUP	DUP	01/22/07 13:41			189	189.5	mg/L				0.3	20

Inorganic Extended **Qualifier Report**

ACZ Project ID: L60731

Phelps Dodge Sierrita

		PARAMETER	METHOD DU	L DESCRIPTION
L60731-01	WG219373	Fluoride	M300.0 - Ion Chromatography R	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219307	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	A Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Phelps Dodge Sierrita

ACZ Project ID: L60731

No certification qualifiers associated with this analysis

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60731

Date Received:

1/16/2007

Received By:

Date Printed:

1/29/2007

Processia Verdicelling

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		X
		Х
		X
Х		
Χ		
Χ		
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Χ		
Χ	200000000000000000000000000000000000000	
		Х
		Х
		Х
		X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Sampang Container

Cooler Id	Temp (°C)	Rad (µR/hr)
NA2827	3.6	16

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

Heles

Sample Receipt

Phelps Dodge Sierrita

ACZ Project ID: Date Received:

L60731

1/16/2007

Received By:

0.000		

SAMPLE			BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60731-01	GW-501760-011507	Υ		-	**************************************	-	***************************************				
L60731-02	GW-501760-011507								Х		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

 $^{^{\}star}$ pH check performed by analyst prior to sample preparatior

Campala IDa Davida III	
Sample IDs Reviewed By:	

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Report to:			,							
Name: XM (TAVA)			Addre	ss:	5)	Wi	Not	nore	Rd#	101
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E-mail:			Telepi	THE RESERVE TO SERVE THE PARTY OF THE PARTY			-			4
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analysis before expiration, shall A If "NO" then ACZ will contact clien	t for further instruction. It	u snort n f neither '	"YES" ı	nor "NO						
is indicated, ACZ will proceed with			Γis exp	oired, an	d data w					
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Sampler's Name:		-	of C	13 2	RFI					
Are any samples NRC licensable SAMPLE IDENTIFICATION	DATE:TIME	Matrix		2,8	学業	´				
GW-501760-011507	1/15/07 1206	(M)	2	X	X					
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Matrix SW (Surface Water) · GW (REMARKS	(Gloding Angrel), ANAA (Angree An	alei) DVV	(Diniking	(vvaler)	or (oldağ	6) 30 (0011)	L (OII) O	ther (opeony)	
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ACZ Laborat 2773 Downhill Drive Steamboat Springs	tories, Inc.	.5493	Loc	対る		CH/	AIN o	CUST	ODY			
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Name: Kim (Tarcia)			Addre	ss:	511	N. We-	more	Kd #	101			
Company: HUAVO (100)			TU	`560M . *	AZ 69	5705)					
E-mail: KimG & HGC inc.	com		Teleph	none: K	520 -12	93-15	00 X.	123				
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If sample(s) received past holding tim	e (HT), or if insufficien	t HT rema	ins to	complete	;			YES V	-			
analysis before expiration, shall ACZ If "NO" then ACZ will contact client fo	proceed with requeste or further instruction. I	d short H f neither '	T analy 'YES" r	'ses? nor "NO"				NO	J			
is indicated, ACZ will proceed with the	e requested analyses,	even if H	is exp	ired, and	data will	be qualifie	d.					
PROJECT INFORMATION		energia en Statistica de la constitución de	AN	ALYSES	REQUEST	TED (attach	list or us	se quote nu	mber)			
Quote #: Silenta Shar	<u>t </u>		· vo									
Project/PO#: 78304.2		_	of Containers									
Reporting state for compliance testi	ng: AZ	_	nta						Specifica			
Sampler's Name:		_	ပ္ခ်	3								
Are any samples NRC licensable m		- Harrison William Control	蛛	100								
SAMPLE IDENTIFICATION	DATE:TIME	Matrix	(1,/					+			
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Matrix SW (Surface Water) · GW (Gro	und Water) · WW (Waste W	/ater) · DW	(Drinking	Water) · S	L (Sludge)	SO (Soil) · O	L (Oil) · Oth	ner (Specify)				
REMARKS												
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	to ACZ's terms & cor	nditions k	ocated	on the r	everse si	de of this (COC.		Stylene cost. (2) på 90,00 gottamous.			
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	1.10101	175)		N.V.			-	<u>``\\</u>				

Analytical Report

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

January 29, 2007

Report to:

Bill Dorris

Phelps Dodge Sierrita

P.O. Box 527

Green Valley, AZ 85622-0527

cc: Jim Norris

Project ID: OJ00XN ACZ Project ID: L60693

Bill Dorris:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 12, 2007. This project has been assigned to ACZ's project number, L60693. Please reference this number in all future inquiries.

Bill to:

Accounts Payable

P.O. Box 2671

Phelps Dodge Sierrita

Phoenix, AZ 85002-2671

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60693. 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 February 28, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

5 Haber mahl 2

29/Jan/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





Inorganic Analytica Results

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-627429-011107

ACZ Sample ID: L60693-01

Date Sampled:

01/11/07 11:16

Date Received:

01/12/07

Sample Matrix:

Ground Water

Field Data									
Paramieter	EPA Method	Passille	O i a	ΥC		MDL		Detro	
Conductivity (Field)	Field Measurement	1047			mS/cm			01/11/07 11:16	kg
pH (Field)	Field Measurement	7.2			units			01/11/07 11:16	kg
Temperature (Field)	Field Measurement	24.3			С			01/11/07 11:16	kg
Metals Analysis									
Parameter	EPA Method			ΧO		MDL	701	Project Control	Analysis
Calcium, dissolved	M200.7 ICP	119		*	mg/L	0.2	1	01/12/07 22:47	gme
Magnesium, dissolved	M200.7 ICP	14.0			mg/L	0.2	1	01/12/07 22:47	gme
Potassium, dissolved	M200.7 ICP	4.5		*	mg/L	0.3	2	01/12/07 22:47	gme
Sodium, dissolved	M200.7 ICP	71.1		*	mg/L	0.3	2	01/12/07 22:47	gme
Wet Chemistry									
Paramoter	EPA Method	Result	Qual	XO	Units	MDL	901	Dritte	America
Alkalinity as CaCO3	SM2320B - Titration					•			
Bicarbonate as		204			mg/L	2	20	01/23/07 0:00	cas
CaCO3					J				
Carbonate as CaCO3	3	10	В		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity		213			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		1.0			%			01/29/07 0:00	calc
Sum of Anions		10.1			meq/L	0.1	0.5	01/29/07 0:00	calc
Sum of Cations		10.3			meq/L	0.1	0.5	01/29/07 0:00	calc
Chloride	M300.0 - Ion Chromatography	43.4			mg/L	0.5	3	01/18/07 23:07	nps
Fluoride	M300.0 - Ion Chromatography	0.5	В	*	mg/L	0.1	0.5	01/18/07 23:07	nps
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	8.2			mg/L	0.2	1	01/29/07 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	8.2			mg/L	0.2	1	01/12/07 20:10	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/12/07 19:47	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	630			mg/L	10	20	01/15/07 12:56	lcp
Sulfate	300.0 - Ion Chromatography	189			mg/L	3	10	01/22/07 13:23	nps
TDS (calculated)	Calculation	610			mg/L	10	50	01/29/07 0:00	calc
TDS (ratio -	Calculation	. 1.03			Ü			01/29/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

L60693: Page 2 of 18

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-529142-011107

ACZ Sample ID: L60693-02

Date Sampled:

01/11/07 12:51

Date Received:

01/12/07

Sample Matrix:

Ground Water

									econo-subtraco material financia
Field Data				***	***************************************				
Parameter	EPA Method	Result	Outel)(O	Units	(7) (6)	901	Date	Analyst
Conductivity (Field)	Field Measurement	437			mS/cm			01/11/07 12:51	kg
pH (Field)	Field Measurement	7.6			units			01/11/07 12:51	kg
Temperature (Field)	Field Measurement	23.7			С			01/11/07 12:51	kg
Metals Analysis									
Parameter	EPA Method	Result	- 1	ΥO	Units	MDL	POL	Date	Anal
Calcium, dissolved	M200.7 ICP	50.5	***************************************	*	mg/L	0.2	1	01/12/07 22:51	gme
Magnesium, dissolved	M200.7 ICP	9.0			mg/L	0.2	1	01/12/07 22:51	gme
Potassium, dissolved	M200.7 ICP	2.9		*	mg/L	0.3	2	01/12/07 22:51	gme
Sodium, dissolved	M200.7 ICP	24.9		*	mg/L	0.3	2	01/12/07 22:51	gme
Wet Chemistry									
Parameter	EPA Method	Result	0.12		Units	NBL	FOL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		191			mg/L	2	20	01/23/07 0:00	cas
CaCO3					Ü				
Carbonate as CaCO		13	В		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity		204			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		0.0			%			01/29/07 0:00	calc
Sum of Anions		4.4			meq/L	0.1	0.5	01/29/07 0:00	calc
Sum of Cations		4.4			meq/L	0.1	0.5	01/29/07 0:00	calc
Chloride	M300.0 - Ion Chromatography	7.3			mg/L	0.5	3	01/18/07 23:43	nps
Fluoride	M300.0 - Ion Chromatography	0.3	В	*	mg/L	0.1	0.5	01/18/07 23:43	nps
•	Calculation: NO3NO2 minus NO2	0.95			mg/L	0.02	0.1	01/29/07 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	0.95			mg/L	0.02	0.1	01/12/07 19:50	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		· U	*	mg/L	0.01	0.05	01/12/07 19:50	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	250			mg/L	10	20	01/15/07 12:58	lcp
Sulfate	300.0 - Ion Chromatography	3.6			mg/L	0.5	3	01/18/07 23:43	nps
TDS (calculated)	Calculation	230			mg/L	10	50	01/29/07 0:00	calc
TDS (ratio -	Calculation	1.09			J.			01/29/07 0:00	calc
measured/calculated)									

Arizona license number: AZ0102

L60693: Page 3 of 18

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-599357-011107

Date Sampled:

01/11/07 15:52

Date Received:

01/12/07

Sample Matrix:

Ground Water

Field Data	,								
Parameter	찍PA Mothed	t a suit			Units	10		Deste	A
Conductivity (Field)	Field Measurement	733			mS/cm			01/11/07 15:52	kg
pH (Field)	Field Measurement	7.6			units			01/11/07 15:52	kg
Temperature (Field)	Field Measurement	26.9			С			01/11/07 15:52	kg
Metals Analysis									Ü
Parameter	EPA Method	Result	Cital	ΧO		3710	2.0	Prints.	An aby st
Calcium, dissolved	M200.7 ICP	80.9		*	mg/L	0.2	1	01/12/07 22:55	gme
Magnesium, dissolved	M200.7 ICP	21.5			mg/L	0.2	1	01/12/07 22:55	gme
Potassium, dissolved	M200.7 ICP	4.3		*	mg/L	0.3	2	01/12/07 22:55	gme
Sodium, dissolved	M200.7 ICP	45.6		*	mg/L	0.3	2	01/12/07 22:55	ame
Wet Chemistry									J.
Parameter	EPA Method	Result	Chini	ΧO		MDL		Distre-	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		129			mg/L	2	20	01/23/07 0:00	cas
CaCO3						-		01/20/01 0.00	
Carbonate as CaCO3	3	4	В		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO3	i e		U		mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity		133			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		1.9			%			01/29/07 0:00	calc
Sum of Anions		7.6			meq/L	0.1	0.5	01/29/07 0:00	calc
Sum of Cations		7.9			meq/L	.0.1	0.5	01/29/07 0:00	calc
Chloride	M300.0 - Ion Chromatography	21.2			mg/L	0.5	3	01/19/07 0:55	nps
Fluoride	M300.0 - Ion Chromatography	0.5	В	*	mg/L	0.1	0.5	01/19/07 0:55	nps
Nitrate as N, dissolved	Calculation: NO3NO2 minus NO2	1.72			mg/L	0.02	0.1	01/29/07 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1.72			mg/L	0.02	0.1	01/12/07 19:52	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction		U	*	mg/L	0.01	0.05	01/12/07 19:52	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	520			mg/L	10	20	01/15/07 12:59	lcp
Sulfate	300.0 - Ion Chromatography	204			mg/L	3	10	01/19/07 15:52	nne
TDS (calculated)	Calculation	467			mg/L	10	50	01/29/07 0:00	nps calc
TDS (ratio -	Calculation	1.11			1119/12	10	50	01/29/07 0:00	calc
measured/calculated)		*** *						0 1/23/07 0.00	Calc

Arizona license number: AZ0102

L60693: Page 4 of 18



Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-627429-011107

ACZ Sample ID: **L60693-04**

Date Sampled:

01/11/07 11:15

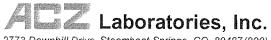
Date Received:

01/12/07

Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	e € Result	Mual XO Minits 🚨		POL	Date A	
Sulfate	300.0 - Ion Chromatography	190	mg/L	3	10	01/22/07 13:59	nps



Inorganic Analytical

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-529142-011107

ACZ Sample ID: *L60693-05*

Date Sampled:

01/11/07 12:50

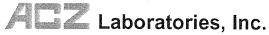
Date Received:

01/12/07

Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	Result On	al a fe a la inita	MDL	POL	Danes	Maly C
Sulfate	300.0 - Ion Chromatography	3.5	mg/L	0.5	3	01/19/07 1:32	nps



Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-599357-011107

ACZ Sample ID: **L60693-06**

Date Sampled:

01/11/07 15:51

Date Received:

01/12/07

Sample Matrix: Ground Water

Wet Chemistry

Potraniia) iar	EPA Method	Result Ci	al XO Linits	MEL	201	Date ≕	Arra II
Sulfate	300.0 - Ion Chromatography	210	mg/L	3	10	01/19/07 16:28	nps

Inorganic Reference

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

	r Explanations		
Batch			
Found	A distinct set of samples analyzed at a specific time Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower			
MDL	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	inote Allevia	for initial and an all and a second file of
PCN/SCN	Method Detection Limit. Same as Minimum Reporting L		
PQL	A number assigned to reagents/standards to trace to the	e manuractui	rens certificate of analysis
QC	Practical Quantitation Limit, typically 5 times the MDL.		
Rec	True Value of the Control Sample or the amount added to		1000
RPD	Amount of the true value or spike added recovered, in % Relative Percent Difference, calculation used for Duplica		
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)	ite QC Type:	S
Sample	Value of the Sample of interest		
	·		
Ole Sample Ty AS	Analytical Spike (Post Digestion)	LCSWD	Laboratony Control Sample, Wicker Dunificate
ASD	Analytical Spike (Post Digestion) Duplicate	LESVID LFB	Laboratory Control Sample - Water Duplicate
CCB	Continuing Calibration Blank	LFB LFM	Laboratory Fortified Blank
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix
DUP	Sample Duplicate	LRB	Laboratory Fortified Matrix Duplicate
ICB	Initial Calibration Blank	MS	Laboratory Reagent Blank
ICV	Initial Calibration Verification standard	MSD	Matrix Spike
ICSAB -	Inter-element Correction Standard - A plus B solutions	PBS	Matrix Spike Duplicate
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Soil
LCSSD	Laboratory Control Sample - Soil Duplicate	PDW PQV	Prep Blank - Water
LCSW	Laboratory Control Sample - Soil Duplicate Laboratory Control Sample - Water	SDL	Practical Quantitation Verification standard
20011	Laboratory Control Cample - Water	SDL	Serial Dilution
**************************************	pe Explanations		
Blanks			ation in the prep method or calibration procedure.
Control Sar			
Duplicates	Verifies the precision of the insti		
Standard	tified Matrix Determines sample matrix interduced Verifies the validity of the calibration.		iny.
ACZ Culatifiers			
200000000000000000000000000000000000000		. 50	
B H	Analyte concentration detected at a value between MDL		
	Analysis exceeded method hold time. pH is a field test v		
R T	Poor spike recovery accepted because the other spike in		
U	High Relative Percent Difference (RPD) accepted becau		oncentrations are less than 10x the MDL.
V	Analyte was analyzed for but not detected at the indicate		
	High blank data accepted because sample concentration		
W	Poor recovery for Silver quality control is accepted becau	use Sliver of	ten precipitates with Chloride.
X Z	Quality control sample is out of control.		
۷	Poor spike recovery is accepted because sample concer	ntration is tol	ur times greater than spike concentration.
Clair faul Refere	nces		
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of W	ater and Wa	astes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of In-		
(3)	EPA 600/R-94-111. Methods for the Determination of M		
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste,		
(6)	Standard Methods for the Examination of Water and Wat		
Comments			
(1)	QC results calculated from raw data. Results may vary s	slightly if the	rounded values are used in the colculations
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses a		
(3)	Animal matrices for Inorganic analyses are reported on a		
` /	and toported off a	40 100014	

REPIN03.11.00.01

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID: L60693

Alkalinity as Ca	СОЗ		SM2320	3 - Titration									
A(872.11)	1910	Avalyzed	PONSON	OC.	Sample	Forms	Units		Lower	United	2.2		Ottal
WG219563													
WG219563LCSW2	LCSW	01/23/07 16:57	WC061230-1	820		834.4	mg/L	101.8	80	120			
WG219563LCSW5	LCSW	01/23/07 19:52	WC061230-1	820		841.9	mg/L	102.7	80	120			
L60693-02DUP	DUP	01/23/07 21:23			204	201.8	mg/L				1.1	20	
L60707-05DUP	DUP	01/23/07 23:30			1090	1089.2	mg/L				0.1	20	
WG219563LCSW8	LCSW	01/23/07 23:43	WC061230-1	820		846.4	mg/L	103.2	80	120			
Calcium, dissolv	/ed		M200.7 I	CP			***************************************						
A17 ID	Type	Analyzad	PENSON	215	5 11111	FLERE	Britis	1,07	Letter	Upper		Limit	
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	100		100.99	mg/L	101	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.6	0.6			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	67.95918		73.32	mg/L	107.9	85	115			
L60685-04AS	AS	01/12/07 22:07	11070102-4	67.95918	823	870.56	mg/L	70	85	115			M3
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	67.95918	823	873.74	mg/L	74.7	85	115	0.36	.20	M 3
Chloride			M300.0 -	Ion Chroma	itograph	ıy		**************************************					
	Type	An and a second		6)	Sample		Units	Rec	Lower	1111		Limit	10.11
WG219171													
WG219171ICV	ICV	01/11/07 18:07	IC070104-1	20		20.21	mg/L	101.1	90	110			
WG219171ICB	ICB	01/11/07 18:25				U	mg/L		-1.5	1.5			
WG219171ICV1	ICV	01/12/07 12:38	IC070104-1	20		20.17	mg/L	100.9	90	110			
WG219171ICB1	ICB	01/12/07 12:56				U	mg/L		-1.5	1.5			
WG219373													
WG219373ICV	ICV	01/11/07 18:07	IC070104-1	20		20.21	mg/L	101.1	90	110			
WG219373ICB	ICB	01/11/07 18:25				U	mg/L		-1.5	1.5			
WG219373ICV1	ICV	01/18/07 13:27	IC070104-1	20		20.27	mg/L	101.4	90	110			
WG219373ICB1	ICB	01/18/07 13:45				U	mg/L		-1.5	1.5			
WG219373LFB1	LFB	01/18/07 14:03	IC061106-1	30		30.14	mg/L	100.5	90	110			
WG219373LFB2	LFB	01/18/07 22:49	IC061106-1	30		29.99	mg/L	100	90	110			
L60693-01DUP	DUP	01/18/07 23:25			43.4	43.33	mg/L				0.2	20	
L60693-02AS	AS	01/19/07 0:01	IC061106-1	30	7.3	36.79	mg/L	98.3	90	110			

REPIN.01.06.05.01

L60693: Page 9 of 18

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Fluoride			M300.0	- Ion Chroma	atograpi	ny							
Acz II	Fyne	Applyzed	Telling		5-21	Fantal		Fee	Lower	Lipper	File		Digital
WG219171													
WG219171ICV	ICV	01/11/07 18:07	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219171ICB	ICB	01/11/07 18:25				U	mg/L		-0.3	0.3			
WG219171ICV1	ICV	01/12/07 12:38	IC070104-1	3.992		3.99	mg/L	99.9	90	110			
WG219171ICB1	ICB	01/12/07 12:56				U	mg/L		-0.3	0.3			
WG219373													
WG219373ICV	ICV	01/11/07 18:07	IC070104-1	3.992		4.1	mg/L	102.7	90	110			
WG219373ICB	ICB	01/11/07 18:25				U	mg/L		-0.3	0.3			
WG219373ICV1	ICV	01/18/07 13:27	IC070104-1	3.992		4.12	mg/L	103.2	90	110			
WG219373ICB1	ICB	01/18/07 13:45				U	mg/L		-0.3	0.3			
WG219373LFB1	LFB	01/18/07 14:03	IC061106-1	1.5		1.55	mg/L	103.3	90	110			
WG219373LFB2	LFB	01/18/07 22:49	IC061106-1	1.5		1.53	mg/L	102	90	110			
L60693-01DUP	DUP	01/18/07 23:25	100011001		.5	.46	mg/L				8.3	20	RA
L60693-02AS	AS	01/19/07 0:01	IC061106-1	1.5 	.3	1.84	mg/L	102.7	90	110		·····	
Magnesium, di			M200.7	ICP									
1972 1	Tyre	Arrange	Politica	O.C.	Same	Sound		1.84	Lower	l la treat	TIP I		(Altri)
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	100		97.96	mg/L	98	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.6	0.6			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	54.98614		57.84	mg/L	105.2	85	115			
L60685-04AS	AS	01/12/07 22:07	11070102-4	54.98614	371	418.23	mg/L	85.9	85	115			
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	54.98614	371	420.97	mg/L	90.9	85	115	0.65	20	
Nitrate/Nitrite a	as N, dis	solved	M353.2	- Automated	Cadmiu	ım Reduc	tion						
A(0.7) II	Type	Arrayzza		20	Stripple	Former	Britis	Rec	Louis	Upper	1111	imi	Cital
WG219208													
WG219208ICV	ICV	01/12/07 19:41	WI061207-1	2.416		2.369	mg/L	98.1	90	110			
WG219208ICB	ICB	01/12/07 19:42				U	mg/L		-0.06	0.06			
WG219208LFB	LFB	01/12/07 19:46	WI060906-4	2		1.986	mg/L	99.3	90	110			
L60693-02DUP	DUP	01/12/07 19:51			.95	.968	mg/L			-	1.9	20	
WG219208ICV1	ICV	01/12/07 20:08	WI061207-1	2.416		2.363	mg/L	97.8	90	110			
WG219208ICB1	ICB	01/12/07 20:09				U	mg/L		-0.06	0.06			
L60693-01AS	AS	01/12/07 20:12	WI060906-4	20	8.2	27.7	mg/L	97.5	90	110			
Nitrite as N, dis	solved		M353.2 -	- Automated	Cadmiu	m Reduct	tion						
Nitrite as N, dis	ssolved	Analyzed	M353.2 -	- Automated	Cadmiu		tion			Upper			Ches
		Analyzed	*44.000.000.000.000.000.000.000.000.000.					Ren	5 THE P	Bara e	n n	Limit	Ca lled
ACZ ID		Analyzed 01/12/07 19:41	*44.000.000.000.000.000.000.000.000.000.				Units					Livelia.	Alex
ACZ ID WG219208	Type		PENSON	F. 8			Units mg/L	Rec 98.7	90	110	Rea	Limit	Parol
ACZ ID WG219208 WG219208ICV	Type ICV	01/12/07 19:41	PENSON	F. 8		Found .601 U	Units mg/L mg/L	98.7	90 -0.03	110 0.03		Limit ·	\$2,150 B
WG219208 WG219208ICV WG219208ICB WG219208LFB	Tyrpe ICV ICB	01/12/07 19:41 01/12/07 19:42	PCNISCN WI061207-1	.609		.601	mg/L mg/L mg/L	98.7 99.6	90 -0.03 90	110 0.03 110	eren	Birit	
WG219208 WG219208ICV WG219208ICB WG219208LFB	Type: ICV ICB LFB	01/12/07 19:41 01/12/07 19:42 01/12/07 19:46	PCN/SCN WI061207-1 WI060906-4	.609 1	Sample	.601 U .996	mg/L mg/L mg/L mg/L mg/L	98.7	90 -0.03	110 0.03			
WG219208 WG219208ICV WG219208ICB WG219208LFB L60693-01AS	Type ICV ICB LFB AS	01/12/07 19:41 01/12/07 19:42 01/12/07 19:46 01/12/07 19:48	PCN/SCN WI061207-1 WI060906-4	.609 1	Sample U	.601 U .996 .979	mg/L mg/L mg/L	98.7 99.6	90 -0.03 90	110 0.03 110	RPD 0	Limit 20	entori RA

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Main													
A 67.2 (8)	Type	Analyzed	penjerin	eic	Sample	Frence	Units	Res	Lower	University	17.1	Linit	Carr
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	20		20.34	mg/L	101.7	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.9				
WG219198LFB	LFB	01/12/07 21:01	11070102-4	99.51014		106.12	mg/L	106.6	85				
L60685-04AS	AS	01/12/07 22:07	II070102-4	99.51014	7.7	126.89	•						M1
L60685-04ASD	ASD	01/12/07 22:11	II070102-4	99.51014	7.7	128.33	-				1.13	20	
Residue, Filtera	able (TD:	S) @180C	M160.1	- Gravimetri	0				·······			***************************************	
ACZ ID	Type	Analyzed	Provision			Ferne	Units	1.51		Upper	RPD	Limit	- 1 - 1
WG219243													
WG219243PBW	PBW	01/15/07 12:40				U	ma/L		-20	20			
WG219243LCSW	LCSW	01/15/07 12:41	PCN26278	261				111.9					
L60698-01DUP	DUP	01/15/07 13:09			740		-		•	.20	2.7	20	
Sodium, dissol	ved		M200.7	ICP							**************************************		
ACZ (p		Arrenyzed		6.16	SMITTER	Forms		(3)	Library	Ligaries	RPE.		Classic
WG219198					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
WG219198ICV	ICV	01/12/07 20:41	1061230-1	100		100 17	ma/l	100.2	95	105			
WG219198ICB	ICB	01/12/07 20:45					-	100.2					
WG219198LFB	LFB		11070102-4	99.90786				105.6					
L60685-04AS	AS	01/12/07 22:07	11070102-4		506		-						N #3
L60685-04ASD	ASD	01/12/07 22:11					-				1.18	20	NO
Sulfate			300.0 - 1	on Chromato	ography						·····		
ACZ III	Tyree	Amilyzad	Personal	O.C.	Sample		Units	Per	SHIPE	Appear	RPD	Limit	Garage 1
WG219171													
WG219171ICV	ICV	01/11/07 18:07	IC070104-1	50		50.74	ma/L	101.5	90	110			
WG219171ICB	ICB	01/11/07 18:25				U	-						
WG219171ICV1	1CV	01/12/07 12:38	IC070104-1	50		50.79	-	101.6					
WG219171ICB1	ICB	01/12/07 12:56				U	•						
WG219373													
WG219373ICV	ICV	01/11/07 18:07	IC070104-1	50		50.74	mg/L	101.5	90	110			
WG219373ICB	ICB	01/11/07 18:25				U	-		-1.5				
WG219373ICV1	ICV	01/18/07 13:27	IC070104-1	50		51.49	-	103					
WG219373ICB1	ICB	01/18/07 13:45				U	mg/L		-1.5	1.5			
WG219373LFB1	LFB	01/18/07 14:03	IC061106-1	-30			•	100.8					
WG219373LFB2	LFB	01/18/07 22:49	IC061106-1	30									
L60693-02AS	AS	01/19/07 0:01	IC061106-1	30	3.6								
L60693-01DUP	DUP	01/22/07 13:41									0.3	20	

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

1		PARAMETER	METHOD	01.01	DESCRIPTION
L60693-01	WG219198	Calcium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Sodium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219373	Fluoride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219208	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60693-02	WG219198	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Sodium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219373	Fluoride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219208	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	· RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60693-03	WG219198	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Sodium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219373	Fluoride	M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219208	Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60693

No certification qualifiers associated with this analysis

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60693

Date Received:

1/12/2007

Received By:

Date Printed:

1/26/2007

Research Vernice and an

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

NO	NA
	Х
	X
	Х
	Х
	X
	X
	Х
	NO

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
1244	***************************************	1.9	12

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

POTES

Sample Receipt

Phelps Dodge Sierrita

ACZ Project ID:

L60693

Date Received:

1/12/2007

Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60693-01	GW-627429-011107		Υ			-	CLUBOLS CONTRACTOR	100570000000000000000000000000000000000				
L60693-02	GW-529142-011107		Y									
L60693-03	GW-599357-011107		Y							······································		iā.
L60693-04	GW-627429-011107									Х		
L60693-05	GW-529142-011107									Х		
L60693-06	GW-599357-011107			1						Х		

Sample Cantainer Preservation Legent

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

^{*} pH check performed by analyst prior to sample preparatio

Sample IDs Reviewed By:	

HYDRO GEO CHEM, INC. Environmental Science & Technology

DOCTORain of Custody

'n Time (Time) (Date) NUMBER OF CONTAINERS RECEIVED BY (LABORATORY) P. RELINQUISHED BY (Printed Name) (Printed Name (Signature YRAGNODES/YRAMIR9 SDINADROMI- AUGS (8) STAT3M me KOT 43 TTLC/STLC CAM METALS (18) PRIORITY POLLUTANT METALS (13) DUTSHED BY **ANALYSIS REQUEST** Printed Name) (Company) Comp HYDROCARBONS 418 HALIDES 9020 TOTAL ORGANIC CARRON 415/9060 TOTAL ORGANIC SELITA JOY OLD A SERVICES SOS/8020 VOLATILES 601/8010 **GETANBOOJAH** 0408/909 **SHENOTS' SOB SHENOTS** OFENORS SITAMORA POLYNUCLEAR NVOICE 608/8080 PESTICIDES/PC8 CC/WZ\ 854/8540 VOLATILE CMPDS. GC/WZ\ 852/8510 REC'D GOOD CONDITION/COLD BASE / NEU/ACID CMPDS TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS SAMPLE RECEIP LAB ID CONFORMS TO RECORD (PHONE NO. 黎 MATRIX LAB NO. TIME SPECIAL INSTRUCTIONS/COMMENTS: **INFORMATION** SAMPLERS (SIGNATURE) SAMPLE ID ROJECT SHIPPING ID PROJ. MGR. ADDRESS COMPANY * څ

51 West Wetmore Road, Suite 101 Tucson, AZ 85705-1678 (520) 293-1500

· PINK - ORIGINATOR

WHITE, CANARY - ANALYTICAL LABORTORY

DISTRIBUTION:

L60693: Page 16 of 18

HYDRO GEO CHEM, INC. Environmental Science & Technology

Chain of Custody

(Time) (Time) (Date) NUMBER OF CONTAINERS RECEIVED BY (LABORATORY) OF. RELINQUISHED (Printed Name (Printed Nan (Signature) [Company] YAAGNODS/YAAMIRG SOME - INORGANICS (8) STATEM (Time) (Date) **EP TOX** TLC/STLC CAM METALS (18) PRIORITY POLLUTANT METALS (13) **ANALYSIS REQUEST** NOUISHED (Company) HYDROCARBONS 418 TOTAL ORGANIC TOTAL ORGANIC 0808/315 NOSRAC AROMATIC VOLATILES HALOGENATED VOLATILES 601/8010 0908/909 PHENOLS, SUB PHENOLS OFE8/OF8 SITAMORA POLYNUCLEAR 0808/809 PESTICIDES/PCB CC/WZ\ 654/8540 VOLATILE CMPDS OC/WZ 9 /SW/DD REC'D GOOD CONDITION/COLD BASE /NEU/ACID CMPDS TOTAL NO. OF CONTAINERS CHAIN OF CUSTODY SEALS SAMPLE RECEIPT ō CONFORMS TO RECORD PHONE NO. LAB MATRIX LAB NO. TIME INSTRUCTIONS/COMMENTS DATE ROJECT INFORMATION W-(ATURA - 0111 OT **FIGNATURE** SHIPPING ID, NO COMPANY ADDRESS SPECIAL PO NO SAMP

51 West Wetmore Road, Suite 101 Tucson, AZ 85705-1678 (520) 293-1500

WHITE, CANARY - ANALYTICAL LABORTORY . PINK - ORIGINATOR

DISTRIBUTION:

L60693: Page 17 of 18

Laura Z. Graham

From: Scott Habermehl

Sent: Friday, January 12, 2007 8:21 AM

To: DocC; Sample Receiving

Subject: FW: Sierrita Short

sample arriving this morning. field data below.

From: KimG [mailto:kimg@hgcinc.com] **Sent:** Thursday, January 11, 2007 6:03 PM

To: Scott Habermehl Subject: Sierrita Short

Hi Scott,

FYI, I sent over 3 more sample sets from today's sampling which are scheduled for AM delivery to your lab. The Final field readings were as follows for each of the wells.

Site	рН	Temp	EC
GW-627429-011107	7.23	24.3	1047
GW-529142-011107	7.63	23.7	437
GW-599357-011107	7.59	26.9	733

Thanks!

Kim Garcia

Kimberly A. Garcia Environmental Scientist Hydro Geo Chem, Inc. 51 W. Wetmore Rd. Suite 101 Tucson, AZ 85705

Office Phone: 520-293-1500 x.123

Cell Phone: 520-990-7695 Fax Number: 520-293-1550

1/12/2007

L60693: Page 18 of 18

March 14, 2007

Report to:

Ned Hall

Phelps Dodge Sierrita

P.O. Box 527 6200 W. Duval Mine Rd.

Green Valley, AZ 85622-0527

cc: Bill Dorris, Jim Norris, Kim Garcia

Project ID: OJ00XN ACZ Project ID: L61280

Ned Hall:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on February 28, 2007. This project has been assigned to ACZ's project number, L61280. Please reference this number in all future inquiries.

Bill to:

Accounts Payable

P.O. Box 2671

Phelps Dodge Sierrita

Phoenix, AZ 85002-2671

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L61280. 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 April 14, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

ha Wobba 14

14/Mar/07

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.







Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-608521-022707

ACZ Sample ID: L61280-01

Date Sampled:

02/27/07 11:40

Date Received:

02/28/07

Sample Matrix:

Ground Water

Field Data

oramater	E-A Method	Recassit Outal	XO, Units Mil	POL Date Ana	IV.
Conductivity (Field)	Field Measurement	575	mS/cm	02/27/07 11:40	kg
pH (Field)	Field Measurement	8.2	units	02/27/07 11:40	kg
Temperature (Field)	Field Measurement	-0.1	C	02/27/07 11:40	kg

Wet Chemistry

Parameter	EPA Method	To actification is a	urd XO - Unites	Med	POL	Data	ne lys
Sulfate	300.0 - Ion Chromatography	173	mg/L	1	5	03/09/07 19:43	ean



Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

Sample ID:

GW-608597-022707

ACZ Sample ID: *L61280-02*

Date Sampled:

02/27/07 13:31

Date Received:

02/28/07

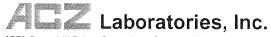
Sample Matrix: Ground Water

Field Data

Parameter	TA Mothed	Result	Oual XO Units	WDL PQL Date	Analysi
Conductivity (Field)	Field Measurement	375	mS/cm	02/27/07 13:31	kg
pH (Field)	Field Measurement	7.5	units	02/27/07 13:31	kg
Temperature (Field)	Field Measurement	-3.6	C	02/27/07 13:31	kg

Wet Chemistry

Patameter	EPA Method	no Result 9	ural 70 units i	DL F	OL.	Date A	
Sulfate	300.0 - Ion Chromatography	56.7	mg/L (0.5	3	03/09/07 14:17	nps



Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

DUP022707A

ACZ Sample ID:

L61280-03

Date Sampled:

02/27/07 00:00

Date Received:

02/28/07

Sample Matrix:

Ground Water

Wet Chemistry

Parameter	EPA Method	Result 9	ual XO Units	MD.	2.51	Dette	nalysi
Sulfate	300.0 - Ion Chromatography	174	mg/L	1	5	03/09/07 20:19	nps

Inorganic Analytical Results 2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

DUP022707B

ACZ Sample ID: L61280-04

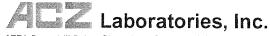
Date Sampled: 02/27/07 00:00

Date Received: 02/28/07

Sample Matrix: Ground Water

Wet Chemistry

Paramatar	EPA Method	Tessil 0	ual XO Units	I I B L	POL	Date	
Sulfate	300.0 - Ion Chromatography	56.9	mg/L	0.5	3	03/09/07 15:11	nps



Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

EQ022707A

ACZ Sample ID:

L61280-05

Date Sampled:

02/27/07 00:00

Date Received:

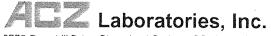
02/28/07

Sample Matrix:

Ground Water

Wet Chemistry

ParameterEPA MethodResultQualXQUnitsMDLPQLDateAnalystSulfate300.0 - Ion ChromatographyUmg/L0.5303/09/07 15:29nps



Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

EQ022707B

ACZ Sample ID:

L61280-06

Date Sampled:

02/27/07 00:00

Date Received:

02/28/07

Sample Matrix:

Ground Water

Wet Chemistry

ParameterEPA MethodResultQual XQUnitsMDLPQLDateAnalystSulfate300.0 - Ion ChromatographyUmg/L0.5303/09/07 15:47nps

Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-608521-022707

ACZ Sample ID: L61280-07

Date Sampled:

02/27/07 11:41

Date Received:

02/28/07

Sample Matrix:

Ground Water

Field Data								
Policipaleita	EPA Method	Result	Qual XX	Units	Min	POL	Delte	Antaly si
Conductivity (Field)	Field Measurement	575		mS/cm			02/27/07 11:41	kg
pH (Field)	Field Measurement	8.2		units			02/27/07 11:41	kg
Temperature (Field)	Field Measurement	-0.1		С			02/27/07 11:41	kg
Metals Analysis								
Parameter	EPA Method	Result	Gilial XX	Units	MIDIL	Pol	State	Vital (18)
Calcium, dissolved	M200.7 ICP	20.0		mg/L	0.2	1	03/02/07 1:32	msh
Magnesium, dissolved	M200.7 ICP	0.5	В	mg/L	0.2	1	03/02/07 1:32	msh
Potassium, dissolved	M200.7 ICP	2.2	*	mg/L	0.3	2	03/02/07 1:32	msh
Wet Chemistry								
Parameter	EPA Method	Result		Units	MOL	POL	Prove	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as CaCO3		90		mg/L	2	20	03/09/07 0:00	cas
Carbonate as CaCO3			U	mg/L	2	20	03/09/07 0:00	cas
Hydroxide as CaCO3			U	mg/L	2	20	03/09/07 0:00	cas
Total Alkalinity		90		mg/L	2	20	03/09/07 0:00	cas
Chloride	M300.0 - Ion Chromatography	12.4		mg/L	0.5	3	03/09/07 16:05	nps
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	390		mg/L	10	20	03/05/07 9:03	lcp
Sulfate	300.0 - Ion Chromatography	173		mg/L	1	5	03/09/07 20:37	nps

Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

GW-608597-022707

ACZ Sample ID: L61280-08

Date Sampled:

02/27/07 13:31

Date Received:

02/28/07

Sample Matrix: Ground Water

Field Data

Parameter	EPA Method	Result Qual	XQ Units MOI	Pel Date And	al vest
Conductivity (Field)	Field Measurement	375	mS/cm	02/27/07 13:31	kg
pH (Field)	Field Measurement	7.5	units	02/27/07 13:31	kg
Temperature (Field)	Field Measurement	-3.6	C	02/27/07 13:31	kg

Metals Analysis

Parameter	EFA Method	Result Qual XC	Juli s	MDL	POL	Datte	
Calcium, dissolved	M200.7 ICP	48.2	mg/L	0.2	1.	03/02/07 1:36	msh
Magnesium, dissolved	M200.7 ICP	6.4	mg/L	0.2	1	03/02/07 1:36	msh
Potassium, dissolved	M200.7 ICP	2.2 *	mg/L	0.3	2	03/02/07 1:36	msh

Wet Chemistry

wet chemistry								
Parameter	W6-5A37(C30)6/6	Flestifi	Office X	l Bhias	MDL	FOL	Date 2	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as		132		mg/L	2	20	03/09/07 0:00	cas
Carbonate as CaCO	3		U	mg/L	2	20	03/09/07 0:00	cas
Hydroxide as CaCO	3		U	mg/L	2	20	03/09/07 0:00	cas
Total Alkalinity		132		mg/L	2	20	03/09/07 0:00	cas
Chloride	M300.0 - Ion Chromatography	8.9		mg/L	0.5	3	03/09/07 17:00	nps
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	270		mg/L	10	20	03/05/07 9:05	lcp
Sulfate	300.0 - Ion Chromatography	56.9		mg/L	0.5	3	03/09/07 17:00	nps

Inorganic Analytical

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

DUP022707A

ACZ Sample ID: L61280-09

Date Sampled:

02/27/07 00:00

Date Received:

02/28/07

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Result C	Mai (C	Smar	DEDIL	FOL	Dotte - 1	vially v
Calcium, dissolved	M200.7 ICP	20.1		mg/L	0.2	1	03/02/07 1:40	msh
Magnesium, dissolved	M200.7 ICP	0.4	В	mg/L	0.2	1	03/02/07 1:40	msh
Potassium, dissolved	M200.7 ICP	2.2	*	mg/L	0.3	2	03/02/07 1:40	msh
Wet Chemistry								

vvet Chemistry								
Parameter	EPA Method	Result	Qual X	Unite	MDL	POL	Date	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as CaCO3		88		mg/L	2	20	03/09/07 0:00	cas
Carbonate as CaCO	93		U	mg/L	2	20	03/09/07 0:00	cas
Hydroxide as CaCO	3		U	mg/L	2	20	03/09/07 0:00	cas
Total Alkalinity		90		mg/L	2	20	03/09/07 0:00	cas
Chloride	M300.0 - Ion Chromatography	12.2		mg/L	0.5	3	03/09/07 17:18	nps
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	380		mg/L	10	20	03/05/07 9:06	lcp
Sulfate	300.0 - Ion Chromatography	174		mg/L	1	5	03/09/07 20:55	nps

Arizona license number: AZ0102

L61280: Page 10 of 22

Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

DUP022707B

ACZ Sample ID: L61280-10

Date Sampled:

02/27/07 00:00

Date Received:

02/28/07

Sample Matrix: Ground Water

Metals Analysis

Paramater	PPA MONTO I	Rosut C		Q Units	MEST	Pol	Doggo	
Calcium, dissolved	M200.7 ICP	48.3		mg/L	0.2	1	03/02/07 1:44	msh
Magnesium, dissolved	M200.7 ICP	6.5		mg/L	0.2	1	03/02/07 1:44	msh
Potassium, dissolved	M200.7 ICP	1.9	В ,	* mg/L	0.3	2	03/02/07 1:44	msh

Wet Chemistry

wet Chemistry								
erameta	EPA Method	Result	Ougl X	Units	14.01	POL	Dratte	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as CaCO3		131		mg/L	2	20	03/09/07 0:00	cas
Carbonate as CaCO	3		U	mg/L	2	20	03/09/07 0:00	cas
Hydroxide as CaCO	3		U	mg/L	2	20	03/09/07 0:00	cas
Total Alkalinity		131		mg/L	2	20	03/09/07 0:00	cas
Chloride	M300.0 - Ion Chromatography	8.9		mg/L	0.5	3	03/09/07 17:36	nps
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	260		mg/L	10	20	03/05/07 9:07	lcp
Sulfate	300.0 - Ion Chromatography	56.9		mg/L	0.5	3	03/09/07 17:36	nps

Arizona license number: AZ0102

L61280: Page 11 of 22

Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

EQ022707A

ACZ Sample ID:

L61280-11

Date Sampled:

02/27/07 00:00

Date Received:

02/28/07

Sample Matrix:

Ground Water

Metals Analysis

Parameter EPA Method Result Qual XQ Units MDL PQL Date Analyst Calcium, dissolved M200.7 ICP U mg/L 0.2 1 03/02/07 1:48 msh Magnesium, dissolved M200.7 ICP U mg/L 0.2 1 03/02/07 1:48 msh Potassium, dissolved M200.7 ICP 0.4 B * mg/L 0.3 2 03/02/07 1:48 msh									
Calcium, dissolved	M200.7 ICP		U		mg/L	0.2	1	03/02/07 1:48	msh
Magnesium, dissolved	M200.7 ICP		U		mg/L	0.2	1	03/02/07 1:48	msh
Potassium, dissolved	M200.7 ICP	0.4	В	*	mg/L	0.3	2	03/02/07 1:48	msh

Wet Chemistry

wet Chemistry									
Parameter	EPAMethod	2.2	Giral		THE STATES	MDL	POL	Falts it 2	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3			U		mg/L	2	20	03/09/07 0:00	cas
Carbonate as CaCO	93		U		mg/L	2	20	03/09/07 0:00	cas
Hydroxide as CaCO	3		U		mg/L	2	20	03/09/07 0:00	cas
Total Alkalinity			U		mg/L	2	20	03/09/07 0:00	cas
Chloride	M300.0 - Ion Chromatography		U	*	mg/L	0.5	3	03/09/07 17:54	nps
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	10	В		mg/L	10	20	03/05/07 9:09	lcp
Sulfate	300.0 - Ion Chromatography		U	*	mg/L	0.5	3	03/09/07 17:54	nps

Arizona license number: AZ0102

L61280: Page 12 of 22

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

EQ022707B

ACZ Sample ID: *L61280-12*

Date Sampled:

02/27/07 00:00

Date Received:

02/28/07

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Result Onel		MDL	100	Drin	
Calcium, dissolved	M200.7 ICP	U	mg/L	0.2	1	03/02/07 1:52	msh
Magnesium, dissolved	M200.7 ICP	U	mg/L	0.2	1	03/02/07 1:52	msh
Potassium, dissolved	M200.7 ICP	U	* mg/L	0.3	2	03/02/07 1:52	msh

Mot Chamistry

wet Chemistry								
Paremeter	EPA Method Res	all Carrie	¥(1)		17 11		\$mile.	11.15
Alkalinity as CaCO3	SM2320B - Titration						200	
Bicarbonate as CaCO3		U		mg/L	2	20	03/09/07 0:00	cas
Carbonate as CaCO	3	U		mg/L	2	20	03/09/07 0:00	cas
Hydroxide as CaCO3	3	U		mg/L	2	20	03/09/07 0:00	cas
Total Alkalinity		U		mg/L	2	20	03/09/07 0:00	cas
Chloride	M300.0 - Ion Chromatography	U	*	mg/L	0.5	3	03/09/07 18:30	nps
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	U		mg/L	10	20	03/05/07 9:10	lcp
Sulfate	300.0 - Ion Chromatography	U	*	mg/L	0.5	3	03/09/07 18:30	nps



Report Heade	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/k	(g)	
MDL	Method Detection Limit. Same as Minimum Reportion	ng Limit. Allows for in	nstrument and annual fluctuations.
PCNISCN	A number assigned to reagents/standards to trace to		
PQL	Practical Quantitation Limit, typically 5 times the MD		·
QC	True Value of the Control Sample or the amount add	led to the Spike	
Rec	Amount of the true value or spike added recovered,	in % (except for LCS	S, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duj	olicate QC Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/k	(g)	
Sample	Value of the Sample of interest		
	pes	9-7-7-8	
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike

ple Type I	

Bianks

ICV

ICSAB

LCSS

LCSSD

LCSW

Verifies that there is no or minimal contamination in the prep method or calibration procedure.

Matrix Spike Duplicate

Practical Quantitation Verification standard

Prep Blank - Soil

Serial Dilution

Prep Blank - Water

Control Samples

Verifies the accuracy of the method, including the prep procedure.

MSD

PBS

PBW

PQV

SDL

Duplicates

Verifies the precision of the instrument and/or method.

Spikes/Fortified Matrix

Determines sample matrix interferences, if any.

Standard

Verifies the validity of the calibration.

ACZ Qualiflers (Qual)

B Analyte concentration detected at a value between MDL and PQL.

Initial Calibration Verification standard

Laboratory Control Sample - Soil Duplicate

Laboratory Control Sample - Soil

Laboratory Control Sample - Water

Inter-element Correction Standard - A plus B solutions

- H Analysis exceeded method hold time. pH is a field test with an immediate hold time.
- U Analyte was analyzed for but not detected at the indicated MDL

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples Supplement I, May 1994.
- (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
- (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Commen

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (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.

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Alkalinity as Ca			SM2320	3 - Titration									
Asz	Туре	AUPLOTO	PENSON	610	Sample	Potraid	Units	Ret	Lower	Uprer	RPD	Limit	Care
WG221415													
WG221415LCSW2	LCSW	03/09/07 10:12	WC070302-2	820		800.9	mg/L	97.7	- 80	120			
L61280-10DUP	DUP	03/09/07 12:48			131	131.7	mg/L				0.5	20	
WG221415LCSW5	LCSW	03/09/07 13:02	WC070302-2	820		810.4	mg/L	98.8	80	120			
L61310-09DUP	DUP	03/09/07 14:09			33	32.2	mg/L				2.5	20	
WG221415LCSW8	LCSW	03/09/07 16:23	WC070302-2	820		816.2	mg/L	99.5	80	120			
Calcium, dissolv	/ed		M200.7 I	CP									***************************************
ACZ ID	Type	Arelyzei	FENISCN	0,6	STUDIE	Perma	Units	Rec	LEPOVEI.	Space		Limit	Ourst
WG221096													
WG221096ICV	ICV	03/01/07 23:39	11070301-1	100		99.14	mg/L	99.1	95	105			
WG221096ICB	ICB	03/01/07 23:43				U	mg/L	00.1	-0.6	0.6			
WG221096LFB	LFB	03/01/07 23:59	11070215-2	67.95918		70.46	mg/L	103.7	85	115			
L61274-03AS	AS	03/02/07 1:04	11070215-2	67.95918	503	562.32	mg/L	87.3	85	115			
L61274-03ASD	ASD	03/02/07 1:08	11070215-2	67.95918	503	563.67	mg/L	89.3	85	115	0.24	20	
Chloride			M300.0 -	Ion Chroma	atograph	ny							
-1974 B	Type	Analyzad	PCMSCN	DIC	Sample	Found	Units	Roc	Lower	Lipper			
WG221379													
WG221379ICV	ICV	03/08/07 2:24	IC070306-1	20		20.23	mg/L	101.2	90	110			
WG221379ICB	ICB	03/08/07 2:42				U	mg/L	70712	-1.5	1.5			
WG221379ICV1	ICV	03/08/07 16:46	IC070306-1	20		20.12	mg/L	100.6	90	110			
WG221379ICB1	ICB	03/08/07 17:04				U	mg/L		-1.5	1.5			
WG221430													
WG221430ICV	ICV	03/08/07 2:24	IC070306-1	20		20.23	mg/L	101.2	90	110			
WG221430ICB	ICB	03/08/07 2:42				U	mg/L		-1.5	1.5			
WG221430ICV1	ICV	03/09/07 12:46	IC070306-1	20		20.15	mg/L	100.8	90	110			
WG221430ICB1	ICB	03/09/07 13:04				U.	mg/L		-1.5	1.5			
WG221430LFB	LFB	03/09/07 13:22	IC070205-3	30		29.89	mg/L	99.6	90	110			
L61280-01DUP	DUP	03/09/07 13:59			12.3	12.14	mg/L				1.3	20	
L61280-02AS	AS	03/09/07 14:35	IC070205-3	30	8.7	38.71	mg/L	100	90	110			
L61280-11DUP	DUP	03/09/07 18:12			U	U	mg/L				0	20	RA
L61280-12AS	AS	03/09/07 18:48	IC070205-3	30	U	34.42	mg/L	114.7	90	110			M1
Magnesium, diss	solved		M200.7 IC	CP							**		
ACZ ID	Type	Assalyszció	FCMScN	OC	Sample	Found	Units	Ren	Freeze	Speci	FOR	Limit	Shall
WG221096													
WG221096ICV	ICV	03/01/07 23:39	11070301-1	100		96.13	mg/L	96.1	95	105			
WG221096ICB	ICB	03/01/07 23:43		-		U	mg/L	00.1	-0.6	0.6			
WG221096LFB	LFB	03/01/07 23:59	11070215-2	54.98614		55.83	mg/L	101.5	85	115			
L61274-03AS	AS	03/02/07 1:04	11070215-2	54.98614	80.6	137.59	mg/L	103.6	85	115			
L61274-03ASD	ASD	03/02/07 1:08	11070215-2	54.98614	80.6	138.01	mg/L	104.4	85	115	0.3	20	

Inorganie 86 Summany

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ	Project	ID:	L61280
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Potassium, diss	olved	Artificial Constitution (Constitution and Artificial Constitution)	M200.7	ICP	84.5/250H254440H27	ing and the second		Yenkind Edwindsmice			en fetamen er urboote	rojil serika jeptembera	
A(07/18)	Type	Analyzed	2015		Samo	Found	Units	Rec	Fred Cit	1900	7(7)		Care
WG221096		***************************************											
WG221096ICV	ICV	03/01/07 23:39	11070301-1	20		20.39	mg/L	102	95	105			
WG221096ICB	ICB	03/01/07 23:43				U	mg/L		-0.9	0.9			
WG221096LFB	LFB	03/01/07 23:59	11070215-2	99.51014		104.06	mg/L	104.6	85	115			
L61274-03AS	AS	03/02/07 1:04	11070215-2	99.51014	10.8	126.94	mg/L	116.7	85	115			M1
L61274-03ASD	ASD	03/02/07 1:08	11070215-2	99.51014	10.8	128.85	mg/L	118.6	85	115	1.49	20	M1
Residue, Filtera	ble (TD	S) @180C	M160.1	- Gravimetrio	>								
78 972 18	Type	Applyzed		D.C	Sample	Familia	Julie	Rec	Lower	Upper	7.71		100
WG221164													
WG221164PBW	PBW	03/05/07 9:00				U	mg/L		-20	20			
WG221164LCSW	LCSW	03/05/07 9:01	PCN26275	261		298	mg/L	114.2	80	120			
L61283-03DUP	DUP	03/05/07 9:15			2240	2242	mg/L				0.1	20	
Sulfate	***************************************		300.0 - 1	on Chromato	graphy								
A(27.11)	1916	Arralyzael	Pro Micros	ØC	Sample	Found	Links	Ran	180795		FEE		Cupi
WG221379													
WG221379ICV	ICV	03/08/07 2:24	IC070306-1	50.15	*	50.86	mg/L	101.4	90	110			
WG221379ICB	ICB	03/08/07 2:42				U	mg/L		-1.5	1.5			
WG221379ICV1	ICV	03/08/07 16:46	IC070306-1	50.15		50.55	mg/L	100.8	90	110			
WG221379ICB1	ICB	03/08/07 17:04				υ	mg/L		-1.5	1.5			
WG221430													
WG221430ICV	ICV	03/08/07 2:24	IC070306-1	50.15		50.86	mg/L	101.4	90	110			
WG221430ICB	ICB	03/08/07 2:42				U	mg/L		-1.5	1.5			
WG221430ICV1	ICV	03/09/07 12:46	IC070306-1	50.15		50.62	mg/L	100.9	90	110			
WG221430ICB1	ICB	03/09/07 13:04				U	mg/L		-1.5	1.5			
WG221430LFB	LFB	03/09/07 13:22	IC070205-3	30		30.06	mg/L	100.2	90	110			
L61280-02AS	AS	03/09/07 14:35	IC070205-3	30	56.7	84.93	mg/L	94.1	90	110			
L61280-11DUP	DUP	03/09/07 18:12			U	U	mg/L				0	20	RA
L61280-12AS	AS	03/09/07 18:48	IC070205-3	30	U	33.73	mg/L	112.4	90	110			M1
L61280-01DUP	DUP	03/09/07 20:01			173	173.6	mg/L				0.3	20	

Inorganic Extended **Qualifier Report**

Phelps Dodge Sierrita

AC7 13		PARAMETER	METHOD		DESCRIPTION
L61280-07	WG221096	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
L61280-08	WG221096	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
L61280-09	WG221096	Potassium, dissolved	M200.7 ICP	-M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
L61280-10	WG221096	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
L61280-11	WG221096	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG221430	Chloride	M300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfate	300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L61280-12	WG221096	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG221430	Chloride	M300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
		Sulfate	300.0 - Ion Chromatography	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			300.0 - Ion Chromatography	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L61280

No certification qualifiers associated with this analysis

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L61280

Date Received:

2/28/2007

Received By:

Date Printed:

2/28/2007

Research Variation

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		Х
		Х
		Х
Х		
Χ		
Χ	C-CANCELL CONTROL CONT	
Х		
Χ		
Χ		
		X
		Х
- FORMESON		Х
		X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
1699	4	16

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

Hotes

Sample Receipt

Phelps Dodge Sierrita OJ00XN

ACZ Project ID: Date Received:

L61280 2/28/2007

Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L61280-01	GW-608521-022707		A Dobbit Control de La control		- Para and a second	************				Χ		
L61280-02	GW-608597-022707									X		
L61280-03	DUP022707A									X		
L61280-04	DUP022707B									X	<u> </u>	
L61280-05	EQ022707A									X		
L61280-06	EQ022707B				***************************************					X	<u> </u>	
L61280-07	GW-608521-022707		Υ									
L61280-08	GW-608597-022707		Y.									
L61280-09	DUP022707A		Υ									
L61280-10	DUP022707B		Y									
L61280-11	EQ022707A		Υ									
L61280-12	EQ022707B		Y									
		Telephone (Carlotte Carlotte C		icorosendo en actividad	Milania Salaman Andrea		Accessoration of the second	500020000000000000000000	Carrier and Carrie		ł	barren anno

Cample Committee Pressprenting Leading

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

^{*} pH check performed by analyst prior to sample preparation

Comple IDe Deviewed Dur	
Sample IDs Reviewed By:	

LO 280

AGZ 2773 Downhill Drive S		ratories,		F402		pla	12		CH.	AIN (of CI	USTO	YDC
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Please re	efer to ACZ's terms & cor	nditions lo	ocated	on the	reverse	e side d	of this	coc.			
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FIRST QUARTER 2007 PDSI SAMPLE ANALYTICAL DATA REPORTS FROM ACZ



Analytical Report

February 14, 2007

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bill Dorris Phelps Dodge Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Project ID: OJ00XN ACZ Project ID: L60762

Bill Dorris:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 18, 2007. This project was assigned to ACZ's project number, L60762. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60762. 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 the requirements of NELAC.

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

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

14/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





REPAD.01.11.00.01

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-26A

ACZ Sample ID: L60762-01

Date Sampled:

01/15/07 13:19

Date Received:

01/18/07

Sample Matrix:

Ground Water

Property and the second			NOT DESCRIBE AND ADDRESS OF THE PARTY OF THE						
Field Data									
Parameter	EPA Method	Result	Qual	ΚO	Units	MEL	POL	Date	Amalyst
Conductivity (Field)	Field Measurement	316			mS/cm			01/15/07 13:19	bd
pH (Field)	Field Measurement	7.9			units			01/15/07 13:19	bd
Temperature (Field)	Field Measurement	26.2			С			01/15/07 13:19	bd
Metals Analysis									
Parameter	EPA Mathod	Result		X (2)	Units	Toll			
Calcium, dissolved	M200.7 ICP	32.9		*	mg/L	0.2	1	01/24/07 21:01	gme
Magnesium, dissolved	M200.7 ICP	8.0			mg/L	0.2	1	01/24/07 21:01	gme
Potassium, dissolved	M200.7 ICP	3.9		*	mg/L	0.3	2	01/25/07 23:36	msh
Sodium, dissolved	M200.7 ICP	36.4		*	mg/L	0.3	2	01/25/07 23:36	msh
						0.0	_	0 (720/07 20.00	******
Wet Chemistry									
Parameter	EPA Method	Result	Qual		Units	MDL		Dete	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		155			mg/L	2	20	01/25/07 0:00	cas
Carbonate as CaCO	3	3	В		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		158			mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation				Ü				
Cation-Anion Balance		8.1			%			02/14/07 0:00	calc
Sum of Anions		3.4			meg/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		4.0			meg/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	8			mg/L	1	5	01/27/07 21:12	pjb
Fluoride	SM4500F-C	0.5		*	mg/L	0.1	0.5	01/31/07 16:16	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.92		*	mg/L	0.02	0.1	01/26/07 19:39	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	240			mg/L	10	20	01/22/07 9:09	lcp
Sulfate	SM4500 SO4-D		U		mg/L	10	50	01/22/07 11:38	lon
TDS (calculated)	Calculation	186	O		mg/L	10	50	02/14/07 0:00	lcp calc
TDS (ratio -	Calculation	1.29			mg/L	10	50	02/14/07 0:00	calc
. = 5 (1000		1.20						02/14/0/ 0.00	Calc

Arizona license number: AZ0102

measured/calculated)

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-26B

Date Sampled:

01/15/07 13:54

Date Received:

01/18/07

Sample Matrix: Ground Water

Field Data									
Parameter	EPA Method	Rosult	Qual	ΧO	Units	MDL	POL	Daile	
Conductivity (Field)	Field Measurement	1310		****************	mS/cm			01/15/07 13:54	bd
pH (Field)	Field Measurement	7.5			units			01/15/07 13:54	bd
Temperature (Field)	Field Measurement	26.4			С			01/15/07 13:54	bd
Metals Analysis									
Parameter	EPA Method	Result	Qual	ΧO	Units	MDL	FOL	Delle	Amalysi
Calcium, dissolved	M200.7 ICP	495		*	mg/L	0.2	1	01/24/07 21:04	gme
Magnesium, dissolved	M200.7 ICP	111			mg/L	0.2	1	01/24/07 21:04	gme
Potassium, dissolved	M200.7 ICP	12.1		*	mg/L	0.3	2	01/25/07 23:48	msh
Sodium, dissolved	M200.7 ICP	97.2		*	mg/L	0.3	2	01/25/07 23:48	msh
Wet Chemistry									
Parameter	EPA Method	Result	Qual	XO		MDL	POL	Date	Artes
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		100			mg/L	2	20	01/25/07 0:00	cas
Carbonate as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		100			mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-0.6			%			02/14/07 0:00	calc
Sum of Anions		38.9			meq/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		38.4			meq/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	126			mg/L	2	10	01/27/07 21:13	pjb
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/31/07 16:29	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.85		*	mg/L	0.02	0.1	01/26/07 19:43	diq
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2710			mg/L	10	20	01/22/07 9:10	lcp
Sulfate	SM4500 SO4-D	1590			mg/L	10	50	01/22/07 11:41	lop
TDS (calculated)	Calculation	2490			mg/L	10	50	02/14/07 0:00	calc
TDS (ratio -	Calculation	1.09			-			02/14/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

L60762: Page 3 of 25

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-26C

Date Sampled:

01/15/07 13:05

Date Received:

01/18/07

Sample Matrix: Ground Water

Fie	ld	D	a	ta

le Analysi	an a
7 13:05 bc	t
7 13:05 bc	d
13:05 bc	t
7	13:05 bo

Metals Analysis

Parameter	EPA Method	Result Oual	XΩ	Units	WDL	Pal	Pales - A	nal (Si
Calcium, dissolved	M200.7 ICP	223	*	mg/L	0.2	1	01/24/07 21:08	gme
Magnesium, dissolved	M200.7 ICP	48.7		mg/L	0.2	1	01/24/07 21:08	gme
Potassium, dissolved	M200.7 ICP	11.5	*	mg/L	0.3	2	01/25/07 23:52	msh
Sodium, dissolved	M200.7 ICP	101	*	mg/L	0.3	2	01/25/07 23:52	msh

Wet Chemistry

vvet Chemistry									
Paramoter	EPA Method	Result	Qual	10	Units	MDL	POL	Date	Analysi
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		87			mg/L	2	20	01/25/07 0:00	cas
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		87			mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		8.0			%			02/14/07 0:00	calc
Sum of Anions		19.6			meq/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		19.9			meq/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	83			mg/L	2	10	01/27/07 21:14	pjb
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/31/07 16:36	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.94		*	mg/L	0.02	0.1	01/26/07 19:44	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	1350			mg/L	. 10	20	01/22/07 9:12	lcp
Sulfate	SM4500 SO4-D	740			mg/L	10	50	01/22/07 11:43	lcp
TDS (calculated)	Calculation	1260			mg/L	10	50	02/14/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.07						02/14/07 0:00	calc

Arizona license number: AZ0102

L60762: Page 4 of 25

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-5

ACZ Sample ID:

L60762-04

Date Sampled:

01/16/07 12:25

Date Received:

01/18/07

Sample Matrix:

Ground Water

								AND THE REAL PROPERTY OF THE PARTY OF THE PA	CONTRACTOR CONTRACTOR
Field Data									
Parameter	EPA Method	Result	Gual	ΧQ	Units	10101	201	Derita	ial ve i
Conductivity (Field)	Field Measurement	1511			mS/cm			01/16/07 12:25	bd
pH (Field)	Field Measurement	7.3			units			01/16/07 12:25	bd
Temperature (Field)	Field Measurement	23.1			С			01/16/07 12:25	bd
Metals Analysis									
Parameter	EPA Method	6.5	Caral			I DL	Pol		
Calcium, dissolved	M200.7 ICP	526		*					Analysi
Magnesium, dissolved	M200.7 ICP	94.0			mg/L	0.2	1	01/24/07 21:11	gme
Potassium, dissolved	M200.7 ICP			*	mg/L	0.2	1	01/24/07 21:11	gme
Sodium, dissolved	M200.7 ICP	8.5		*	mg/L	0.3	2	01/25/07 23:56	msh
Jodium, dissolved	W200.7 ICF	185		•	mg/L	0.3	2	01/25/07 23:56	msh
Wet Chemistry									
Paramoter	EPA Method	Result	Qual	ΧO	Units	MDL	POL	Date	Analysi
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		170			mg/L	2	20	01/25/07 0:00	cas
Carbonate as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		170			mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-1.7			%			02/14/07 0:00	calc
Sum of Anions		43.9			meg/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		42.4			meq/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	163			mg/L	5	30	01/27/07 21:16	pjb
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/31/07 16:38	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.91		*	mg/L	0.02	0.1	01/26/07 19:46	diq
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	3010			mg/L	10	20	01/22/07 9:13	lop
Sulfate	SM4500 SO4-D	1710			mg/L	10	50	01/22/07 11:46	lop
TDS (calculated)	Calculation	2790			mg/L	10	50	02/14/07 0:00	calc
TDS (ratio -	Calculation	1.08			-			02/14/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

L60762: Page 5 of 25

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-6A

ACZ Sample ID:

L60762-05

Date Sampled:

01/16/07 11:35

Date Received:

01/18/07

Sample Matrix: Ground Water

						skog gallyrikkist Hisznad			
Field Data									
Paramoter	EPA Method	Result	Qual	3.00	Units	MIDIL	FOL	Date	Amalysa
Conductivity (Field)	Field Measurement	1562			mS/cm			01/16/07 11:35	bd
pH (Field)	Field Measurement	7.3			units			01/16/07 11:35	bd
Temperature (Field)	Field Measurement	22.5			С			01/16/07 11:35	bd
Metals Analysis									
Parameter	EPA Method	Fleres H.		10	Units	MEL		Date	A resident
Calcium, dissolved	M200.7 ICP	503		*	mg/L	0.2	1	01/24/07 21:22	gme
Magnesium, dissolved	M200.7 ICP	89.9			mg/L	0.2	1	01/24/07 21:22	gme
Potassium, dissolved	M200.7 ICP	7.9		*	mg/L	0.3	2	01/26/07 0:00	msh
Sodium, dissolved	M200.7 ICP	228		*	mg/L	0.3	2	01/26/07 0:00	msh
Wet Chemistry									
Parameter	EPA Method	32(31)	Chial	10		(4) 8.2		Desire.	American
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		110			mg/L	2	20	01/25/07 0:00	cas
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		110			mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-0.8			%			02/14/07 0:00	calc
Sum of Anions		43.5			meq/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		42.8			meq/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	123			mg/L	2	10	01/27/07 21:18	pjb
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/31/07 14:00	ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.73			mg/L	0.02	0.1	01/26/07 19:47	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	3030			mg/L	10	20	01/22/07 9:14	lcp
Sulfate	SM4500 SO4-D	1800			mg/L	10	50	01/22/07 11:49	lcp
TDS (calculated)	Calculation	2820			mg/L	10	50	02/14/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.07				•		02/14/07 0:00	calc

Arizona license number: AZ0102

L60762: Page 6 of 25

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-10

ACZ Sample ID:

L60762-06

Date Sampled:

01/16/07 12:10

Date Received:

01/18/07

Sample Matrix:

Ground Water

Fie	ld	D	a	ta

Parameter	EPA Method	Result Orla	XQ Units MD	POL Date An	-10-5
Conductivity (Field)	Field Measurement	1303	mS/cm	01/16/07 12:10	bd
pH (Field)	Field Measurement	7.4	units	01/16/07 12:10	bd
Temperature (Field)	Field Measurement	23.7	C	01/16/07 12:10	bd

Metals Analysis

Parameter	EPA Method	Result Qual	ΧQ	Units	MDL	POL	Date A	naly
Calcium, dissolved	M200.7 ICP	483	*	mg/L	0.2	1	01/24/07 21:26	gme
Magnesium, dissolved	M200.7 ICP	90.0		mg/L	0.2	1	01/24/07 21:26	gme
Potassium, dissolved	M200.7 ICP	11.7	*	mg/L	0.3	2	01/26/07 0:04	msh
Sodium, dissolved	M200.7 ICP	173	*	mg/L	0.3	2	01/26/07 0:04	msh

Wet Chemistry

wet Chemistry								
Parameter	EPA Method	Result	Ougi Xo	Units	WDL	POL	Datte	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as CaCO3		155		mg/L	2	20	01/25/07 0:00	cas
Carbonate as CaCO3			1.1		•	00	04/07/07 4 4 4	
			U	mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3			U	mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		155		mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation							
Cation-Anion Balance		-3.4		%			02/14/07 0:00	calc
Sum of Anions		42.2		meq/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		39.4		meq/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	145		mg/L	3	20	01/27/07 21:19	pjb
Fluoride	SM4500F-C	0.2	В *	mg/L	0.1	0.5	01/31/07 14:02	ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.90		mg/L	0.02	0.1	01/26/07 19:49	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2920		mg/L	10	20	01/22/07 9:16	lcp
Sulfate	SM4500 SO4-D	1670		mg/L	10	50	01/22/07 11:51	lop
TDS (calculated)	Calculation	2670		mg/L	10	50	02/14/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.09		-			02/14/07 0:00	calc

Arizona license number: AZ0102

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-11

ACZ Sample ID:

L60762-07

Date Sampled:

01/16/07 11:50

Date Received:

01/18/07

Sample Matrix:

Ground Water

						grandito vegani stati			
Field Data									
Parameter	EPA Method	Result	Ottol	ΧO	Units	MIDIL	POL	Delte	Amalyst
Conductivity (Field)	Field Measurement	1516			mS/cm			01/16/07 11:50	bd
pH (Field)	Field Measurement	7.1			units			01/16/07 11:50	bd
Temperature (Field)	Field Measurement	21.7			С			01/16/07 11:50	bd
Metals Analysis									
Paramere	EPA Method	Result	Obal	(6)	Units	//BIL	POL	The state of the s	Analysi
Calcium, dissolved	M200.7 ICP	482		*	mg/L	0.2	1	01/24/07 21:29	gme
Magnesium, dissolved	M200.7 ICP	93.0			mg/L	0.2	1	01/24/07 21:29	gme
Potassium, dissolved	M200.7 ICP	9.1		*	mg/L	0.3	2	01/26/07 0:08	msh
Sodium, dissolved	M200.7 ICP	215		*	mg/L	0.3	2	01/26/07 0:08	msh
Wet Chemistry					Ü				
Parameter	EPA Nethod	Castil	Orral		Units	MDL	- 01	D-ate.	Analysi
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as	SWIZSZOD - Milation	129			mg/L	2	20	01/25/07 0:00	
CaCO3		123			mg/L	2	20	01/25/07 0.00	cas
Carbonate as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3	}		U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		129			mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-0.5			%			02/14/07 0:00	calc
Sum of Anions		41.8			meq/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		41.4			meq/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	124			mg/L	3	20	01/27/07 21:20	pjb
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/31/07 14:11	ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.74			mg/L	0.02	0.1	01/26/07 19:52	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2920			mg/L	10	20	01/22/07 9:17	lcp
Sulfate	SM4500 SO4-D	1700			mg/L	10	50	01/22/07 11:54	lcp
TDS (calculated)	Calculation	2700			mg/L	10	50	02/14/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.08						02/14/07 0:00	calc

Arizona license number: AZ0102

L60762: Page 8 of 25

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-12

ACZ Sample ID: L60762-08

Date Sampled:

01/16/07 11:20

Date Received:

01/18/07

Sample Matrix:

Ground Water

Field Data									
Parameter	EPA Method	Result	Qual	ΧO	Units	MBL	POL	Date	Antalysis
Conductivity (Field)	Field Measurement	1444			mS/cm			01/16/07 11:20	bd
pH (Field)	Field Measurement	6.9			units			01/16/07 11:20	bd
Temperature (Field)	Field Measurement	22.3			С			01/16/07 11:20	bd
Metals Analysis									
Parameter	EPA Method	TANCE I	Qual	ΧQ	Units	WDL	POL	Date	
Calcium, dissolved	M200.7 ICP	470		*	mg/L	0.2	1	01/24/07 21:33	gme
Magnesium, dissolved	M200.7 ICP	95.3			mg/L	0.2	1	01/24/07 21:33	gme
Potassium, dissolved	M200.7 ICP	8.6		*	mg/L	0.3	2	01/26/07 0:12	msh
Sodium, dissolved	M200.7 ICP	188		*	mg/L	0.3	2	01/26/07 0:12	msh
Wet Chemistry					Ü				
Parameter	EPA Method	New 11	Qual					Dene	
Alkalinity as CaCO3	SM2320B - Titration							D.M. S.E.S.	Ariellyst
Bicarbonate as	- Made T	114			mg/L	2	20	04/05/07 0.00	
CaCO3		114			my/L	2	20	01/25/07 0:00	cas
Carbonate as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	ças
Hydroxide as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity		114			mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation				J				-
Cation-Anion Balance		0.4			%			02/14/07 0:00	calc
Sum of Anions		39.5			meg/L	0.1	0.5	02/14/07 0:00	calc
Sum of Cations		39.8			meg/L	0.1	0.5	02/14/07 0:00	calc
Chloride	M325.2 - Colorimetric	113			mg/L	2	10	01/27/07 21:23	pjb
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/31/07 14:19	ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.10			mg/L	0.02	0.1	01/26/07 19:53	pjb
Residue, Filterable	M160.1 - Gravimetric	2720			mg/L	10	20	01/22/07 9:18	lcp
(TDS) @180C					Ü				.00
Sulfate	SM4500 SO4-D	1620			mg/L	10	50	01/22/07 11:59	lcp
TDS (calculated)	Calculation	2560			mg/L	10	50	02/14/07 0:00	calc
TDS (ratio -	Calculation	1.06						02/14/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

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Inorganic Reference



	-		
***************************************	r Explanations		
Batch	A distinct set of samples analyzed at a specific time		
Found Limit	Value of the QC Type of interest		
	Upper limit for RPD, in %.		
Lower MDL	Lower Recovery Limit, in % (except for LCSS, mg/Kg)	imit Allaura fa	
PCNISCN	Method Detection Limit. Same as Minimum Reporting L A number assigned to reagents/standards to trace to the		
PQL	Practical Quantitation Limit, typically 5 times the MDL.	e manulacturer	s certificate of arranysis
QC	True Value of the Control Sample or the amount added	to the Snike	
Rec	Amount of the true value or spike added recovered, in %		CSS ma/Ka)
RPD	Relative Percent Difference, calculation used for Duplica	, ,	500, mg/Ng/
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
ΩC Sample Ty	rpes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation Verification standard	<i>LFMD</i>	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
Samue Ti	/pe Explanations		
Blanks	Verifies that there is no or minir	nal contaminati	ion in the prep method or calibration procedure.
Control Sa	mples Verifies the accuracy of the me	thod, including	the prep procedure.
Duplicates	Verifies the precision of the inst	rument and/or	method.
Spikes/For	tified Matrix Determines sample matrix inter	ferences, if any	y.
Standard	Verifies the validity of the calibr	ation.	
ACZ Cualifier	s (Qual)		
В	Analyte concentration detected at a value between MDL	and PQL.	
Н	Analysis exceeded method hold time. pH is a field test	with an immedi	iate hold time.
R	Poor spike recovery accepted because the other spike i	n the set fell wi	ithin the given limits.
T	High Relative Percent Difference (RPD) accepted becau	ise sample con	centrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicate	ed MDL	
V	High blank data accepted because sample concentration	n is 10 times hi	gher than blank concentration
W	Poor recovery for Silver quality control is accepted beca	use Silver ofter	n precipitates with Chloride.
X	Quality control sample is out of control.		
, Z	Poor spike recovery is accepted because sample conce	ntration is four	times greater than spike concentration.
	nces		
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of V	Vater and Wast	tes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Ir	organic Substa	ances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of M		
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste	, Third Edition	with Update III, December 1996.
(6)	Standard Methods for the Examination of Water and Wa	stewater, 19th	edition, 1995.
Comments			
(1)	QC results calculated from raw data. Results may vary	slightly if the ro	ounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses a		
(3)	Animal matrices for Inorganic analyses are reported on a		
DEDINO2 11 OC			

REPIN03.11.00.01

Phelps Dodge Sierrita

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OJ00XN

	SENSON CONTRACTOR				- PER SERVICE					(day) as Especially		
Alkalinity as Ca	CO3		SM2320E	- Titration								
ACZ-ID	iype:	Assolyzed	PONSON	QC	Sample	Fernal	Units	Per	Lower		F P L	Limit Crest
WG219648												
WG219648LCSW2	LCSW	01/25/07 16:04	WC061230-1	820		808.8	mg/L	98.6	80	120		
WG219648LCSW5	LCSW	01/25/07 19:19	WC061230-1	820		812	mg/L	99	80	120		
L60762-08DUP	DUP	01/25/07 22:13			114	114.3	mg/L				0.3	20
WG219648LCSW8	LCSW	01/25/07 22:26	WC061230-1	820		820.3	mg/L	100	80	120		
Aluminum, diss	olved		M200.7 IC	CP	******************************			***************************************				· .
A6Z ID		Antilyzed	PONISON		Sumple	Foodral		Para		Green.	7 = 5	E 11
WG219495												
WG219495ICV	ICV	01/24/07 20:00	II061230-1	2		2.045	mg/L	102.3	95	105		
WG219495ICB	ICB	01/24/07 20:05				U	mg/L		-0.09	0.09		
WG219495LFB	LFB	01/24/07 20:19	11070119-5	1		1.059	mg/L	105.9	85	115		
L60760-01AS	AS	01/24/07 20:26	11070119-5	1	.43	1.519	mg/L	108.9	85	115		
L60760-01ASD	ASD	01/24/07 20:29	11070119-5	1	.43	1.543	mg/L	111.3	85	115	1.57	20
L60762-04AS	AS	01/24/07 21:15	11070119-5	1	U	1.12	mg/L	112	85	115		
L60762-04ASD	ASD	01/24/07 21:19	11070119-5	1	U	1.035	mg/L	103.5	85	115	7.89	20
WG219667												
WG219667ICV	ICV	01/25/07 22:04	II061230-1	.2		2.036	mg/L	101.8	95	105		
WG219667ICB	ICB	01/25/07 22:08				U	mg/L		-0.09	0.09		
WG219667LFB	LFB	01/25/07 22:24	11070119-5	1		1.044	mg/L	104.4	85	115		
L60761-06AS	AS	01/25/07 23:28	11070119-5	1	.03	1.11	mg/L	108	85	115		
L60761-06ASD	ASD	01/25/07 23:32	11070119-5	1	.03	1.165	mg/L	113.5	85	115	4.84	20
Antimony, disso	olved		M200.8 IC	P-MS								
A872 (2)	Type	Analyzan e	Pleaser	O.C.		-11111	Onle	Rec	Lower	Upper	HID	Emile Rel
WG219511												
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.02		.02016	mg/L	100.8	90	110		
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0012	0.0012		
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.00625		.00669	mg/L	107	85	115		
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.00625	U	.00627	mg/L	100.3	70	130		
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.00625	U	.00642	mg/L	102.7	70	130	2.36	20
L60762-06AS	AS	01/22/07 20:53	MS061218-3	.00625	U	.00646	mg/L	103.4	70	130		
L60762-06ASD	ASD	01/22/07 20:58	MS061218-3	.00625	U	.00657	mg/L	105.1	70	130	1.69	20
Arsenic, dissolv	ed		M200.8 IC	P-MS								
A(\$77.18	Type	The second		CIC	Sample	Farmer	Using	Rec	Object	Unper		
WG219511												
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.05496	mg/L	109.9	90	110		
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0015	0.0015		
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05648	mg/L	113	85	115		
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05209	mg/L	104.2	70	130		
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05183	mg/L	103.7	70	130	0.5	20
L60762-06AS	AS	01/22/07 20:53	MS061218-3	.05	.0027	.05953	mg/L	113.7	70	130		
L60762-06ASD	ASD	01/22/07 20:58	MS061218-3	.05	.0027	.06013	mg/L	114.9	70	130	1	20

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Barium, dissolv	/ed		M200.7 I	СР									
ACZ ID	Time	Analyzed	FEMALE	OIC		Found	Units	Rec	Lover	Hitter		Limit	GIE
WG219467													
WG219467ICV	ICV	01/20/07 23:38	11061230-1	2		2.0573	mg/L	102.9	95	105			
WG219467ICB	ICB	01/20/07 23:42				U	mg/L		-0.009	0.009			
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.5292	mg/L	105.8	85	115			
L60760-01AS	AS	01/21/07 0:06	11070119-5	.5	.012	.5107	mg/L	99.7	85	115			
L60760-01ASD	ASD	01/21/07 0:10	11070119-5	.5	.012	.4937	mg/L	96.3	85	115	3.39	20	
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	.032	.4957	mg/L	92.7	85	115			
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	.032	.5197	mg/L	97.5	85	115	4.73	20	
Beryllium, diss			M200.8 I	***************************************									
A 7	Type		PCNESCA!		Sample	Found		Rec	Lower	dejecr		Lauren	Casa
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.04995	mg/L	99.9	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05106	mg/L	102.1	85	115			•
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05368	mg/L	107.4	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05306	mg/L	106.1	70	130	1.16	20	
L60762-06AS L60762-06ASD	AS ASD	01/22/07 20:53	MS061218-3	.05	U	.0436	mg/L	87.2	70	130		••	
WG219546	AGD	01/22/07 20:58	MS061218-3	.05	U	.04322	mg/L	86.4	70	130	0.88	20	
WG219546ICV	10)/	04/00/07 47:40	140070400 0	0.5									
WG219546ICB	ICV ICB	01/23/07 17:16 01/23/07 17:22	MS070108-2	.05		.04928	mg/L	98.6	90	110			
WG219546LFB	LFB	01/23/07 17:28	MS061218-3	.05		U .0514	mg/L mg/L	102.8	-0.0003 85	0.0003 115			
L60761-05AS	AS	01/23/07 17:39	MS061218-3	.05	.0169	.05763	mg/L	81.5	70	130			
L60761-05ASD	ASD	01/23/07 17:45	MS061218-3	.05	.0169	.0577	mg/L	81.6	70	130	0.12	20	
Cadmium, disse	olved		M200.8 I	CP-MS									
ACZ ID	177	Analyzad	FORESEN	el.			Units	Fac	Lower	Upper		Latrit	Cara
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.05025	mg/L	100.5	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L	,,,,,,	-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05246	mg/L	104.9	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05321	mg/L	106.4	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05342	mg/L	106.8	70	130	0.39	20	
L60762-06AS	AS	01/22/07 20:53	MS061218-3	.05	.0002	.04942	mg/L	98.4	70	130			
L60762-06ASD	ASD	01/22/07 20:58	MS061218-3	.05	.0002	.05004	mg/L	99.7	70	130	1.25	20	
Calcium, dissol			M200.7 I	CP									
A 072 16	Type	Analyza		610	Same	Found	Unite	Ren	Lower	Upper	177	Limit	Altai
WG219495													
WG219495ICV	ICV	01/24/07 20:00	II061230-1	100		100.66	mg/L	100.7	95	105			
WG219495ICB	ICB	01/24/07 20:05				U	mg/L		-0.6	0.6			
WG219495LFB	LFB	01/24/07 20:19	11070119-5	67.95918		72.28	mg/L	106.4	85	115			
L60760-01AS	AS	01/24/07 20:26	11070119-5	67.95918	599	640.8	mg/L	61.5	85	115			M3
L60760-01ASD	ASD	01/24/07 20:29	11070119-5	67.95918	599	656.27	mg/L	84.3	85	115	2.39	20	M3
L60762-04AS	AS	01/24/07 21:15	11070119-5	67.95918	526	581.48	mg/L	81.6	85	115			M3
L60762-04ASD	ASD	01/24/07 21:19	11070119-5	67.95918	526	581.85	mg/L	82.2	85	115	0.06	20	M3

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Chloride			M325.2	- Colorimetri	С							
ACZ II	Туре	Arrabyzad	FIRME	OC	Sample	Found	Units	Rec		distorar	700	Elmit Carri
WG219739												
WG219739ICV	ICV	01/27/07 20:58	WI061113-3	55		56.9	mg/L	103.5	90	110		
WG219739ICB	ICB	01/27/07 20:59				U	mg/L		-3	3		
WG219739LFB1	LFB	01/27/07 21:00	WI061127-1	30		30.4	mg/L	101.3	90	110		
L60758-02DUP	DUP	01/27/07 21:04			122	124.9	mg/L			.,.	2.3	20
L60762-03AS	AS	01/27/07 21:15	WI061127-1	60	83	141.7	mg/L	97.8	90	110		
L60762-04DUP	DUP	01/27/07 21:17			163	163.9	mg/L				0.6	20
WG219739LFB2	LFB	01/27/07 21:27	WI061127-1	30		31.4	mg/L	104.7	90	110	0.0	20
L60758-01AS	AS	01/27/07 21:41	WI061127-1	150	123	277.9	mg/L	103.3	90	110		
Chromium, diss	olved		M200.7 I	CP				***************************************				**************************************
AGZ/IB		Analyzo		ē	Sample		Line	T.		Lighter	EFFE	Limit envi
WG219467												
WG219467ICV	ICV	01/20/07 23:38	11061230-1	2		1.959	mg/L	98	95	105		
WG219467ICB	ICB	01/20/07 23:42				U	mg/L	00	-0.03	0.03		
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.522	mg/L	104.4	85	115		
L60760-01AS	AS	01/21/07 0:06	11070119-5	.5	· U	.495	mg/L	99	85	115		
L60760-01ASD	ASD	01/21/07 0:10	11070119-5	.5	υ	.489	mg/L	97.8	85	115	1.22	20
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.475	mg/L	95	85	115	1.22	20
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	U	.496	mg/L	99.2	85	115	4.33	20
Cobalt, dissolve	d		M200.7 I	CP			· · · · · · · · · · · · · · · · · · ·	·	 			
A-7 (0)	Type	Analyzad		e)D		Found	Units		Loure		Wes	
WG219467												
WG219467ICV	ICV	01/20/07 23:38	11061230-1	2		1.941	mg/L	97.1	95	105		
WG219467ICB	ICB	01/20/07 23:42	11001200 7	-		U	mg/L	31.1	-0.03	0.03		
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.52	mg/L	104	85	115		
L60760-01AS	AS	01/21/07 0:06	11070119-5	.5	U	.486	mg/L	97.2	85	115		
L60760-01ASD	ASD	01/21/07 0:10	11070119-5	.5	U	.476	mg/L	95.2	85	115	2.08	20
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.45	mg/L	90	85	115	2.00	20
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	U	.481	mg/L	96.2	85	115	6.66	20
Conductivity @2	25C		M120.1 -	Meter	***************************************						THE RESERVE OF THE PERSON NAMED IN COLUMN 1	
ACZ ID	Type	Analyzed		S)		Featre	Units	Rec	l o con	Liptor		
WG219648											0.30,000,000,000,000,000,000	
WG219648PBW1	PBW	01/25/07 15:52				U	umhos/cn		-10	10		
WG219648LCSW1	LCSW	01/25/07 15:54	PCN25346	1408.8		1450	umhos/cn	102.9	80	120		
WG219648PBW2	PBW	01/25/07 19:08				U	umhos/cn	.02.0	-10	10		
WG219648LCSW4	LCSW	01/25/07 19:09	PCN25346	1408.8		1450	umhos/cn	102.9	80	120		
L60762-08DUP	DUP	01/25/07 22:13			3020	3020	umhos/cn		••	12.0	0	20
WG219648LCSW7	LCSW	01/25/07 22:15	PCN25346	1408.8		1470	umhos/cn	104.3	80	120		

Phelps Dodge Sierrita

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Copper, dissolv	/ed		M200.7 I	CP								ich peter inn men aus e	Talliani Salar
A 7	Typic	Analyzes		910	Same	Figure	Links	Rec	Lossier	Upper		Limit	G)troi
WG219495													
WG219495ICV	ICV	01/24/07 20:00	11061230-1	2		1.945	mg/L	97.3	95	105			
WG219495ICB	ICB	01/24/07 20:05				U	mg/L		-0.03	0.03			
WG219495LFB	LFB	01/24/07 20:19	11070119-5	.5		.479	mg/L	95.8	85	115			
L60760-01AS	AS	01/24/07 20:26	11070119-5	.5		.397	mg/L	79.4	85	115			M2
L60760-01ASD	ASD	01/24/07 20:29	11070119-5	.5		.418	mg/L	83.6	85	115	5.15	20	M2
L60762-04AS	AS	01/24/07 21:15	11070119-5	.5	U	.434	mg/L	86.8	85	115			
L60762-04ASD	ASD	01/24/07 21:19	11070119-5	.5	U	.436	mg/L	87.2	85	115	0.46	20	
WG219667													
WG219667ICV	ICV	01/25/07 22:04	11061230-1	2		1.957	mg/L	97.9	95	105			
WG219667ICB	ICB	01/25/07 22:08				U	mg/L		-0.03	0.03			
WG219667LFB	LFB	01/25/07 22:24	11070119-5	.5		.496	mg/L	99.2	85	115			
L60761-06AS	AS	01/25/07 23:28	11070119-5	.5	U	.533	mg/L	106.6	85	115			
L60761-06ASD	ASD	01/25/07 23:32	11070119-5	.5	U	.537	mg/L	107.4	85	115	0.75	20	
Cyanide, total				Colorimetri						************************		holdstanding in the freeze and	
-CZ III		Analyzed				FOUND	liners		l. owe	Upper	8125	Limit	GHE!
WG219685													
WG219685ICV	ICV	01/26/07 10:36	WI070126-3	.3		.29	mg/L	96.7	90	110			
WG219685ICB	ICB	01/26/07 10:37				U	mg/L		-0.015	0.015			
WG219617LRB	LRB	01/26/07 10:38				U	mg/L		-0.015	0.015			
WG219617LFB	LFB	01/26/07 10:38	WI070111-7	.2		.1926	mg/L	96.3	90	110			
L60758-03DUP	DUP	01/26/07 10:40			.028	.0253	mg/L				10.1	20	RA
L60758-04LFM	LFM	01/26/07 10:42	WI070111-7	.2	.036	.2238	mg/L	93.9	90	110			
L60762-04DUP WG219655LRB	DUP LRB	01/26/07 10:52 01/26/07 11:03			.006	U	mg/L		0.045		200	20	RA
WG219655LFB	LFB	01/26/07 11:03	WI070111-7	0		U 4000	mg/L	04.0	-0.015	0.015			mar i
L60773-01DUP	DUP	01/26/07 11:04	VVIO70 1 1-7	.2	.016	.1898	mg/L	94.9	90	110	4.0	00	D.4
L60773-02LFM	LFM	01/26/07 11:09	WI070111-7	.2	.063	.0158 .2702	mg/L	103.6	90	440	1.3	20	RA
L60762-05LFM	LFM	01/26/07 11:14	WI070111-7	.2	.014	.2061	mg/L			110			
Fluoride	C) 1V:	0 1720/07 11.14	**************************************		.014	.2001	mg/L	96.1	90	110			
riuoriae	Tyres	Ananyzad	SM4500F	0		Found	Units	9	Longer	Upper		Eimit	Duni
										DIP PER	RPB.	100	
WG219819 WG219819ICV	ICV	04/04/07 40:40	W0070400 4	4.000		0.05		400 ==					
WG219819IC8	ICB	01/31/07 12:46 01/31/07 12:53	WC070126-1	1.996		2.05	mg/L	102.7	95	105			
WG219819LFB1	LFB	01/31/07 12:59	MC061021 1	4.00000		U	mg/L	400	-0.3	0.3			
WG219819LFB2	LFB	01/31/07 12:59	WC061021-1 WC061021-1	4.99902 4.99902		5.1 5.07	mg/L	102	90	110			
L60762-04DUP	DUP	01/31/07 16:41	VVO001021*1	4.00002	.2	.23	mg/L mg/L	101.4	90	110	14	20	DΛ
L60762-04AS	AS	01/31/07 16:45	WC061021-1	4.99902	.2	5.1	mg/L	98	85	115	. 14	20	RA
WG219851	,	0 1/0 1/01 /01/10	770007021		• 4	0.1	mg/L	30	00	110			
WG219851ICV	ICV	01/31/07 13:30	WC070126-1	1.996		1.97	mg/L	98.7	OE.	105			
WG219851ICB	ICB	01/31/07 13:32		1.000		1.97 U	mg/L	30.1	95 -0.3	105 0.3			
WG219851LFB	LFB	01/31/07 13:38	WC061021-1	4.99902		5.31	mg/L	106.2	90	110			
L60762-07AS	AS	01/31/07 14:13	WC061021-1	4.99902	.2	4.93	mg/L	94.6	90 85	115			
L60762-07DUP	DUP	01/31/07 14:16			.2	.19	mg/L	21.0	50	. 10	5.1	20	RA
L60775-02AS	AS	01/31/07 14:52	WC061021-1	4.99902	.4	5.04	mg/L	92.8	85	115			
L60775-02DUP	DUP	01/31/07 14:54			.4	.34	mg/L		- -		16.2	20	RA

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Iron, dissolved			M200.7	ICP					anton (Britishey) on a construction				
		Analyzed		8/8	3 11 11 12 13	Forme	Units	Rec	Lower		FFF		0.000
WG219495													
WG219495ICV	ICV	01/24/07 20:00	11061230-1	2		2.012	mg/L	100.6	95	105			
WG219495ICB	ICB	01/24/07 20:05				U	mg/L	10,0.0	-0.06	0.06			
WG219495LFB	LFB	01/24/07 20:19	11070119-5	1		1.074	mg/L	107.4	85	115			
L60760-01AS	AS	01/24/07 20:26	11070119-5	1	U	1.054	mg/L	105.4	85	115			
L60760-01ASD	ASD	01/24/07 20:29	11070119-5	1	U	1.048	mg/L	104.8	85	115	0.57	20	
L60762-04AS	AS	01/24/07 21:15	11070119-5	1	.1	1.124	mg/L	102.4	85	115			
L60762-04ASD	ASD	01/24/07 21:19	11070119-5	1	.1	1.138	mg/L	103.8	85	115	1.24	20	
Lead, dissolved	ł		M200.8	ICP-MS				***************************************	Married Marrie				
AC7/18	Type	Analyzon							Lower	Union	FFE	Linit	Care
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.05057	mg/L	101.1	90	110			
WG219511ICB	ICB	01/22/07 19:21				Ų	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05043	mg/L	100.9	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05035	mg/L	100.7	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.04997	mg/L	99.9	70	130	0.76	20	
L60762-06AS	AS	01/22/07 20:53	MS061218-3	.05	.0011	.05286	mg/L	103.5	70	130			
L60762-06ASD	ASD	01/22/07 20:58	MS061218-3	.05	.0011	.05346	mg/L	104.7	70	130	1.13	20	
Magnesium, dis	solved		M200,7 I	CP				·	····				
A67/16	Type	Antilyzad	FIGNESTA	ei.	Sample	Form	Units	Ten	L CHICAT	loner		Limit	Charles
WG219495													**************************************
WG219495ICV	ICV	01/24/07 20:00	11061230-1	100		97.32	mg/L	97.3	95	105			
WG219495ICB	ICB .	01/24/07 20:05				U	mg/L		-0.6	0.6			
WG219495LFB	LFB	01/24/07 20:19	11070119-5	54.98614		57.45	mg/L	104.5	85	115			
L60760-01AS	AS	01/24/07 20:26	11070119-5	54.98614	21.8	74.56	mg/L	96	85	115			
L60760-01ASD	ASD	01/24/07 20:29	11070119-5	54.98614	21.8	77.21	mg/L	100.8	85	115	3.49	20	
L60762-04AS	AS	01/24/07 21:15	11070119-5	54.98614	94	147.75	mg/L	97.8	85	115			
L60762-04ASD	ASD	01/24/07 21:19	11070119-5	54.98614	94	148.44	mg/L	99	85	115	0.47	20	
Manganese, dis	solved		M200.7 I	CP									
A(842) B	Туре	Analyzed		9.00	Samula	Found	Units	Per	i anna	Unner	RPD	Limit	Giral
WG219467													
WG219467ICV	ICV	01/20/07 23:38	11061230-1	2		1.9439	mg/L	97.2	95	105			
WG219467ICB	ICB	01/20/07 23:42				U	mg/L		-0.015	0.015			
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.5242	mg/L	104.8	85	115			
L60760-01AS	AS	01/21/07 0:06	11070119-5	.5	.927	1.3808	mg/L	90.8	85	115			
L60760-01ASD	ASD	01/21/07 0:10	11070119-5	.5	.927	1.33	mg/L	80.6	85	115	3.75	20	MA
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.4683	mg/L	93.7	85	115			
L60762-04ASD	ASD	01/21/07 1:05	II070119-5	.5	U	.4915	mg/L	98.3	85	115	4.83	20	

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Mercury, disso	lved		M245.1	CVAA									
A1572 D	Type	Analyzed		516		Felipi	Units	Fine	Lower	lipper	EP 0	Limit	Cara
WG219540													
WG219540ICV	ICV	01/24/07 17:00	11070115-2	.005		.00494	mg/L	98.8	95	105			
WG219540ICB	ICB	01/24/07 17:03				U	mg/L		-0.0002	0.0002			
WG219538													
WG219538LRB	LRB	01/24/07 18:13				υ	mg/L		-0.00044	0.00044			
WG219538LFB	LFB	01/24/07 18:15	11070104-3	.002		.00173	mg/L	86.5	85	115			
L60761-04LFM	LFM	01/24/07 18:51	11070104-3	.002	U	.00182	mg/L	91	85	115			
L60761-04LFMD	LFMD	01/24/07 18:53	11070104-3	.002	U	.00182	mg/L	91	85	115	0	20	
WG219539													
WG219539ICV	ICV	01/25/07 9:36	11070115-2	.005		.00488	mg/L	97.6	95	105			
WG219539ICB	ICB	01/25/07 9:39				U	mg/L		-0.0002	0.0002			
WG219539LRB	LRB	01/25/07 9:41				U	mg/L		-0.00044	0.00044			
WG219539LFB	LFB	01/25/07 9:43	11070104-3	.002		.00193	mg/L	96.5	85	115			
L60762-08LFM	LFM	01/25/07 9:47	11070104-3	.002	U	.00205	mg/L	102.5	85	115			
L60762-08LFMD	LFMD	01/25/07 9:49	H070104-3	.002	U	.00202	mg/L	101	85	115	1.47	20	
Molybdenum, d	lissolve	d	M200.7 I	CP						·	-		***
SCZ ID	Туре	Applyment	PENERAL	8.6	Sample	- C 1112		Rec	. conser	Umper	5 5 5	Limit	Cital
WG219495		***************************************											
WG219495ICV	ICV	01/24/07 20:00	11061230-1	2		2.083	mg/L	104.2	95	105			
WG219495ICB	ICB	01/24/07 20:05				U	mg/L		-0.03	0.03			
WG219495LFB	LFB	01/24/07 20:19	11070119-5	.5		.533	mg/L	106.6	85	115			
L60760-01AS	AS	01/24/07 20:26	11070119-5	.5	2.82	3.217	mg/L	79.4	85	115			M 3
L60760-01ASD	ASD	01/24/07 20:29	11070119-5	.5	2.82	3.326	mg/L	101.2	85	115	3.33	20	
L60762-04AS	AS	01/24/07 21:15	11070119-5	.5	.03	.552	mg/L	104.4	85	115			
L60762-04ASD	ASD	01/24/07 21:19	11070119-5	.5	.03	.548	mg/L	103.6	85	115	0.73	20	
Nickel, dissolve	∍d		M200.7 I	CP			***************************************			***************************************			
A 8/Z (B)	Type	Analyzed	PENYSON		Sample	Fourt	Units	Pinc	Louise	Upper	RPD		Chrel
WG219467													
WG219467ICV	ICV	01/20/07 23:38	11061230-1	2		1.954	mg/L	97.7	95	105			
WG219467ICB	ICB	01/20/07 23:42				U	mg/L		-0.03	0.03			
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.517	mg/L	103.4	85	115			
L60760-01AS	AS	01/21/07 0:06	11070119-5	.5	U	.495	mg/L	99	85	115			
L60760-01ASD	ASD	01/21/07 0:10	II070119-5	.5	U	.479	mg/L	95.8	85	115	3.29	20	
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.458	mg/L	91.6	85	115		•	
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	U	.488	mg/L	97.6	85	115	6.34	20	
	······································	The transfer of the second of						· · · · · · · · · · · · · · · · · · ·					

Phelps Dodge Sierrita

Project ID:

BURNETS PRINTED AND AND AND AND AND AND AND AND AND AN					TANKS OF THE SECOND	Bulletin (State State St		THE STREET, ST			(ded messes accompany)		
Nitrate/Nitrite as	s N		M353.2	- H2SO4 pr	eserved								
at ex	Туре	Availyzed	POWSON	GR	Sample	Found	Units		corre	Diser	riei)	Limit	Oliai
WG219725													
WG219725ICV	ICV	01/26/07 18:12	WI061207-1	2.416		2.311	mg/L	95.7	90	110			
WG219725ICB	ICB	01/26/07 18:14				U	mg/L	00.1	-0.06	0.06			
WG219727													
WG219727ICV	ICV	01/26/07 19:25	WI061207-1	2.416		2.314	mg/L	95.8	90	110			
WG219727ICB	ICB	01/26/07 19:26				U	mg/L		-0.06	0.06			
WG219727LFB	LFB	01/26/07 19:27	WI060906-4	2		1.899	mg/L	95	90	110			
L60761-01AS	AS	01/26/07 19:30	WI060906-4	2	.15	2.184	mg/L	101.7	90	110			
L60761-02DUP	DUP	01/26/07 19:32			.14	.149	mg/L				6.2	20	RA
L60762-05AS	AS	01/26/07 19:48	WI060906-4	2	.73	2.771	mg/L	102.1	90	110			
L60762-06DUP	DUP	01/26/07 19:51			.9	.902	mg/L				0.2	20	
pH (lab)		77-78-60-00-10-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	M150.1 -	Electromet	ric			**************************************					**************************************
ACZID	Type	Anelyzer	TO NESTERN	@]a		Found	Units	Flore	Lower	Upper	FPD		efici
WG219648													
WG219648LCSW3	LCSW	01/25/07 16:07	PCN25442	. 6		6.09	units	101.5	. 00	440			
WG219648LCSW6	LCSW	01/25/07 19:22	PCN25442	6		6.1	units	101.5	90	110			
L60762-08DUP	DUP	01/25/07 22:13	1 01120112	U	8.1	8.07	units	101.7	90	110	0.4	00	
WG219648LCSW9	LCSW	01/25/07 22:29	PCN25442	6	0.1	6.12	units	102	90	110	0.4	20	
Potassium, diss	olved		M200.7 I	CP									
ACZ ID	777	Analyzed	FONSON	0.0	Samolo	Found	Units	Elen-	Lower	Upper		Limit	
WG219667							-						
WG219667ICV	ICV	01/25/07 22:04	II061230-1	20		20.77	mg/L	103.9	95	105			
WG219667ICB	ICB	01/25/07 22:08	11001200-1	20		20.77 U	mg/L	103.8	-0.9	105			
WG219667LFB	LFB	01/25/07 22:24	11070119-5	99.51014		103.96	mg/L	104.5	-0.9 85	0.9 115			
L60761-06AS	AS	01/25/07 23:28	11070119-5	99.51014	U	112.19	mg/L	112.7	85	115			
L60761-06ASD	ASD	01/25/07 23:32	11070119-5	99.51014	U	116.6	mg/L	117.2	85	115	3.86	20	MA
Residue, Filtera	hie (TDS	S) @1800	M160.1	Gravimetrio	******					110	0.00	20	IVP
Acz II	DIE (TD	Analyzasi	W100.1 -	Gravimetri	Samula	Forms	la mila:	Res	Lower				
								F (4.18	L.C.P.C.E.I	Upper	RP0	Linit	
WG219478						•							
WG219478PBW	PBW	01/22/07 8:50				16	mg/L		-20	20			
WG219478LCSW	LCSW	01/22/07 8:51	PCN26278	261		300	mg/L	114.9	80	120			
L60762-08DUP	DUP	01/22/07 9:19		····	2720	2706	mg/L			***************************************	0.5	20	
Selenium, disso	Historia de Caración de Caraci		M200.8 I	CP-MS									
V7.E	Type	Artellion	POSSEN	QC.	Sample	Forms	Urile	Rec	. este	7777	FIFT	1.1111	agai
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.05349	mg/L	107	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05307	mg/L	106.1	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05338	mg/L	106.8	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05402	mg/L	108	70	130	1.19	20	
L60762-06AS	AS	01/22/07 20:53	MS061218-3	.05	.0019	.06024	mg/L	116.7	70	130			
L60762-06ASD	ASD	01/22/07 20:58	MS061218-3	.05	.0019	.06037	mg/L	116.9	70	130	0.22	20	

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OJ00XN

Sodium, dissolv	ved		M200.7 I	CP ·						a United de la Propinsión			
Asyzi i	Type		Profession	elc	Sample	Found	Units	Rec	Lower	Lipper	RFT		
WG219667													
WG219667ICV	ICV	01/25/07 22:04	11061230-1	100		102.69	mg/L	102.7	95	105			
WG219667ICB	ICB	01/25/07 22:08				U	mg/L		-0.9	0.9			
WG219667LFB	LFB	01/25/07 22:24	11070119-5	99.90786		103.55	mg/L	103.6	85	115			
L60761-06AS	A\$	01/25/07 23:28	11070119-5	99.90786	U	111.54	mg/L	111.6	85	115			
L60761-06ASD	ASD	01/25/07 23:32	11070119-5	99.90786	U	115.7	mg/L	115.8	85	115	3.66	20	MA
Sulfate			SM4500	SO4-D		***************************************						***************************************	
2874 (B)	Type	N 19729		(a) (a)	Samole	Found	Units	Rec	1.50	Loper	17710		
WG219484													
WG219484PBW	PBW	01/22/07 11:26				U	mg/L		-30	30			
WG219484LCSW	LCSW	01/22/07 11:28	WC061207-2	100		98	mg/L	98	80	120			
L60762-07DUP	DUP	01/22/07 11:56			1700	1733	mg/L				1.9	20	
L60774-01DUP	DUP	01/22/07 12:25			3340	3457	mg/L				3.4	20	
Thallium, disso	lved		M200.8 I	CP-MS									
(1972 T)	Турс	Arterbyzeu	Police	O.D.		FORES	Units		Lorenza	e a per	100	1 1111	
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.056		.05703	mg/L	101.8	90 .	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.054	mg/L	108	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05374	mg/L	107.5	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05391	mg/L	107.8	70	130	0.32	20	
L60762-06AS	AS	01/22/07 20:53	MS061218-3	.05	U	.05574	mg/L	111.5	70	130			
L60762-06ASD	ASD	01/22/07 20:58	MS061218-3	.05	U	.0559	mg/L	111.8	70	130	0.29	20	
Zinc, dissolved			M200.7 I	CP CP									
ACZ (D	Type	Analyzad	Patricial	eje	Samue	Folia	Units	Rec	Lever	Upper	PP 1		100
WG219495													
WG219495ICV	ICV	01/24/07 20:00	II061230-1	2		2.004	mg/L	100.2	95	105			
WG219495ICB	ICB	01/24/07 20:05				U	mg/L		-0.03	0.03			
WG219495LFB	LFB	01/24/07 20:19	11070119-5	.5		.545	mg/L	109	85	115			
L60760-01AS	AS	01/24/07 20:26	11070119-5	.5	U	.501	mg/L	100.2	85	115			
L60760-01ASD	ASD	01/24/07 20:29	11070119-5	.5	U	.525	mg/L	105	85	115	4.68	20	
L60762-04AS	AS	01/24/07 21:15	II070119-5	.5	.03	.539	mg/L	101.8	85	115			
L60762-04ASD	ASD	01/24/07 21:19	II070119-5	.5	.03	.566	mg/L	107.2	85	115	4.89	20	

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

A.572 (D	MORKSLAY	PARAMETER			
		Programmas in a	METHOD	1416741	DESCRIPTION
L60762-01	WG219495	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219467	Manganese, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219495	Molybdenum, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219667	Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219727	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60762-02	WG219495	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219467	Manganese, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219495	Molybdenum, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219667	Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219727	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

Alerz (D	WORKSHA	PARAMETER	MESTALOID	GLA.	DESCRIPTION
L60762-03	WG219495	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Copper, dissolved	M200.7 ICP	M2	•
	WG219467	Manganese, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219495	Molybdenum, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219667	Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219727	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60762-04	WG219495	Calcium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219667	Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819 .	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219727	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60762-05	WG219495	Calcium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219667	Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

A BYZ (D)	PER PER PER	2007 - 11 may 200	Alman	CHA	DESCRIPTION
L60762-06	WG219495	Calcium, dissolved	M200.7 ICP	M3	
	WG219667	Potassium, dissolved	M200.7 ICP	MA	
		Sodium, dissolved	M200.7 ICP	MA	•
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60762-07	WG219495	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219667	Potassium, dissolved	M200.7 ICP	MA	•
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60762-08	WG219495	Calcium, dissolved	M200,7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219667	Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60762

No certification qualifiers associated with this analysis

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60762

Date Received:

1/18/2007

Received By:

Date Printed:

1/18/2007

Receipt Verification

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		Х
X		The state of the s
		X
Х		
Х		
Χ		
Х		
X	-	
Χ		
		X
	Х	
Х		
		X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

The client was not contacted.

Shipping Carreliges

Cooler Id	Temp (°C)	Rad (µR/hr)
212	3.7	13

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

Notes

Sample Receipt

Phelps Dodge Sierrita OJ00XN

ACZ Project ID:

L60762

Date Received:

1/18/2007

Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60762-01	MH-26A		Υ		Υ			<u> </u>			 	
L60762-02	MH-26B		Y		Υ							
L60762-03	MH-26C		Y		Y							
_60762-04	IW-5		Υ		Y							
L60762-05	IW-6A		Y		Υ							
L60762-06	IW-10		Y		Υ							
L60762-07	IW-11		Y		Y							
_60762-08	IW-12		Υ		Y					************		

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μ R/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs Reviewed B	V:

ANALYTICAL REQUEST SHEET

TICAL REQUEST SHEET

Chain of Custody
Po# - OJ00XN

P.O. Box 527, Green Valley, AZ 85622

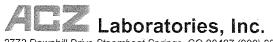
Page / of /

Ambient Suite Requested Analysis Field Data 26.2 24.6 22.5 23.7 21.7 22.3 Temp 26.4 23.1 1059 1303 1516 316 1310 1511 1562 1444 Cond 7.38 7.10 6.93 7.89 7.53 7.89 7.34 7.25 Hd 2 2 Ŋ 2 Ŋ Ŋ Ŋ Unpres Preservatives 12 SO H 190 ထ ∞ œ œ ω œ ø # of Cont. Time 13:19 13:54 13:05 12:25 11:35 12:10 11:50 11:20 1/16/2007 1/16/2007 1/15/2007 1/15/2007 1/16/2007 1/16/2007 1/16/2007 1/15/2007 Location MH-26B MH-26C MH-26A IW-6A IW-10 W-12 IW-11 W-5 Lab Use Only

*

Sample Submitted By: Billy Dorris	Te	Telephone No. 520-648-8873		Fax No.
Report Results To: Billy Dorris	Te	Telephone No. 520-648-8873		Fax No. 520-648-8608
Samples Submitted on Ice: (69) / No	O. W.			Laboratory Name and Address:
Surrendered By: Fill 7. Bris	Received By:	Date: '	O'O'Time: 105/	ACZ Laboratory
Surrendered By:	Received By:	Date:	Time:	30400 Downhill Drive
Comments/Special Instructions:			And the second s	Steamboat Springs, CO 80487 Phone: 8003345493

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Analytical Report

February 16, 2007

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bill Dorris Phelps Dodge Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Project ID: OJ00XN ACZ Project ID: L60773

Bill Dorris:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 19, 2007. This project was assigned to ACZ's project number, L60773. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60773. 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 the requirements of NELAC.

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

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

5. Habermehl

16/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





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L60773: Page 1 of 22

Inorganic Analytical Rasillis

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-4

ACZ Sample ID:

L60773-01

Date Sampled:

01/18/07 07:50

Date Received:

01/19/07

Sample Matrix:

Ground Water

Field Data									
Parameter	EPA Method	Result	One	ΧQ	inis.	ivin)	FOL	Delle	Analysi
Conductivity (Field)	Field Measurement	2210			mS/cm			01/18/07 7:50	bd
pH (Field)	Field Measurement	6.8			units			01/18/07 7:50	bd
Temperature (Field)	Field Measurement	22.4	,		С			01/18/07 7:50	bd
Metals Analysis									
Parameter	EPA Method	Result	Öual	χĐ	Units	MOL	FOL	Date	Arralyst
Calcium, dissolved	M200.7 ICP	530			mg/L	0.4	2	01/29/07 22:26	msh
Magnesium, dissolved	M200.7 ICP	93.0			mg/L	0.4	2	01/29/07 22:26	msh
Potassium, dissolved	M200.7 ICP	9.9			mg/L	0.3	2	01/29/07 13:07	msh
Sodium, dissolved	M200.7 ICP	164		*	mg/L	0.3	2	01/29/07 13:07	msh
Wet Chemistry									
Parameter	EPA Method	Result	Qua	χO	Units	MDL	POL	Date	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		148			mg/L	2	20	01/31/07 0:00	cas
CaCO3									
Carbonate as CaCO3			U		mg/L	2	20	01/31/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/31/07 0:00	cas
Total Alkalinity		148		*	mg/L	2	20	01/31/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		1.0			%			02/16/07 0:00	calc
Sum of Anions		40.8			meq/L	` 0.1	0.5	02/16/07 0:00	calc
Sum of Cations		41.6			meq/L	0.1	0.5	02/16/07 0:00	calc
Chloride	M325.2 - Colorimetric	142			mg/L	.3	20	01/27/07 21:26	pjb
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/31/07 14:24	ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.74			mg/L	0.02	0.1	01/26/07 19:54	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2800			mg/L	10	20	01/23/07 16:46	seb/lcp
Sulfate	SM4500 SO4-D	1610			mg/L	10	50	01/22/07 12:12	lcp
TDS (calculated)	Calculation	2640			mg/L	10	50	02/16/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.06			J			02/16/07 0:00	calc

Arizona license number: AZ0102

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2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-9

ACZ Sample ID:

L60773-02

Date Sampled:

01/18/07 08:15

Date Received:

01/19/07

Sample Matrix:

Ground Water

							oli i kirili amang mada		
Field Data									
Parameter	EPA Method	T40,5911	Qual	ΧQ	Units	MOL	PO.	Date	Arrandar
Conductivity (Field)	Field Measurement	1690			mS/cm			01/18/07 8:15	bd
pH (Field)	Field Measurement	7.4			units			01/18/07 8:15	bd
Temperature (Field)	Field Measurement	22.6			С			01/18/07 8:15	bd
Metals Analysis									
Parameter	≡PA Netho∉	X	Original	7.0	Units	MDL			
Calcium, dissolved	M200.7 ICP	501		*	mg/L	0.2	1	01/21/07 2:45	gme
Magnesium, dissolved	M200.7 ICP	101			mg/L	0.2	1	01/21/07 2:45	gme
Potassium, dissolved	M200.7 ICP	12.7		*	mg/L	0.3	2	01/21/07 2:45	gme
Sodium, dissolved	M200.7 ICP	188			mg/L	0.3	2	01/21/07 2:45	gme
									3
Wet Chemistry	EPA Melhot						7.01		
Parameter		Result	Const		Units	0.01		Deste	Ameliyet
Alkalinity as CaCO3	SM2320B - Titration	404							
Bicarbonate as CaCO3		124			mg/L	2	20	01/31/07 0:00	cas
Carbonate as CaCO	3		U		mg/L	2	20	01/31/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/31/07 0:00	cas
Total Alkalinity		124		*	mg/L	2	20	01/31/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	•	1.0			%			02/16/07 0:00	calc
Sum of Anions		41.1			meq/L	0.1	0.5	02/16/07 0:00	calc
Sum of Cations		41.9			meq/L	0.1	0.5	02/16/07 0:00	caic
Chloride	M325.2 - Colorimetric	128		*	mg/L	5	30	01/27/07 21:28	pjb
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/31/07 14:27	ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.82			mg/L	0.02	0.1	01/26/07 19:59	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2970			mg/L	10	20	01/23/07 16:48	seb/lcp
Sulfate	SM4500 SO4-D	1670			mg/L	10	50	01/22/07 12:14	lcp
TDS (calculated)	Calculation	2680			mg/L	10	50	02/16/07 0:00	calc
TDS (ratio -	Calculation	1.11						02/16/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-18

ACZ Sample ID:

L60773-03

Date Sampled:

01/18/07 07:20

Date Received:

01/19/07

Sample Matrix:

Ground Water

							eneronomi indire medi		SING CONTRACTOR OF THE SECOND
Field Data									
Parameter	EPA Method	Result	Dual	ΧO	Units	MDL	POL	Date	Analysi
Conductivity (Field)	Field Measurement	1460			mS/cm			01/18/07 7:20	bd
pH (Field)	Field Measurement	7.3			units			01/18/07 7:20	bd
Temperature (Field)	Field Measurement	15.4			С			01/18/07 7:20	bd
Metals Analysis									
Parameter	EPA Method	Restati	Oral	ΧO	Units	WieL	201	Date.	
Calcium, dissolved	M200.7 ICP	518		*	mg/L	0.2	1	01/21/07 2:57	gme
Magnesium, dissolved	M200.7 ICP	114			mg/L	0.2	. 1	01/21/07 2:57	gme
Potassium, dissolved	M200.7 ICP	7.5		*	mg/L	0.3	2	01/21/07 2:57	gme
Sodium, dissolved	M200.7 ICP	107			mg/L	0.3	2	01/21/07 2:57	gme
								0 1/2 1/0/ 2.01	91110
Wet Chemistry									
Parameter	EPA Method	Result		7.0	Units	WELL	POL	Date	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		129			mg/L	2	20	01/31/07 0:00	cas
Carbonate as CaCO3	3		U		ma/l	2	20	01/31/07 0:00	
Hydroxide as CaCO3			U		mg/L mg/L	2	20	01/31/07 0:00	cas
Total Alkalinity		129	U	*	mg/L	2	20	01/31/07 0:00	cas
Cation-Anion Balance	Calculation	. 123			mg/L	۷.	20	01/31/07 0.00	cas
Cation-Anion Balance		-1.0			%			02/16/07 0:00	1-
Sum of Anions		41.0			meg/L	0.1	0.5	02/16/07 0:00	calc
Sum of Cations		40.2			meg/L	0.1	0.5	02/16/07 0:00	calc
Chloride	M325.2 - Colorimetric	127		*	mg/L	2	10	01/27/07 21:30	calc
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1			pjb
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.89	D			0.02	0.5 0.1	01/31/07 14:30 01/26/07 20:00	ct
Residue, Filterable	M160.1 - Gravimetric	2830			mg/L	10	20		pjb
(TDS) @180C	W100.1 - Gravimetric	2030			mg/L	10	20	01/23/07 16:50	seb/lcp
Sulfate	SM4500 SO4-D	1660			mg/L	10	50	01/22/07 12:17	lcp
TDS (calculated)	Calculation	2610			mg/L	10	50	02/16/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.08						02/16/07 0:00	calc

Arizona license number: AZ0102

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2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

DUP011807A

ACZ Sample ID:

L60773-04

Date Sampled:

01/18/07 00:00

Date Received:

01/19/07

Sample Matrix:

Ground Water

Metals Analysis									
Parameter	EPA Method	Result	Qua	I XQ	Units	MDL	POL	Desire	Amaliasi
Calcium, dissolved	M200.7 ICP	495		*	mg/L	0.2	1	01/21/07 3:01	gme
Magnesium, dissolved	M200.7 ICP	88.2			mg/L	0.2	1	01/21/07 3:01	gme
Potassium, dissolved	M200.7 ICP	10.2		*	mg/L	0.3	2	01/21/07 3:01	gme
Sodium, dissolved	M200.7 ICP	165			mg/L	0.3	2	01/21/07 3:01	gme
Wet Chemistry									
Parameter	EPA Method	Result	Qua	XQ.	Units	MDL	FOL	Dete	Analysi -
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		148			mg/L	2	20	01/31/07 0:00	cas
Carbonate as CaCO3	3		U		mg/L	2	20	01/31/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/31/07 0:00	cas
Total Alkalinity		148		*	mg/L	.2	20	01/31/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-1.0			%			02/16/07 0:00	calc
Sum of Anions		40.3			meq/L	0.1	0.5	02/16/07 0:00	calc
Sum of Cations		39.5			meq/L	0.1	0.5	02/16/07 0:00	calc
Chloride	M325.2 - Colorimetric	141		*	mg/L	2	10	01/27/07 21:34	pjb
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/31/07 14:32	ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.76			mg/L	0.02	0.1	01/26/07 20:02	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2780			mg/L	10	20	01/23/07 16:53	seb/lcp
Sulfate	SM4500 SO4-D	1590			mg/L	10	50	01/22/07 12:19	lcp
TDS (calculated)	Calculation	2580			mg/L	10	50	02/16/07 0:00	calc

1.08

Arizona license number: AZ0102

Calculation

TDS (ratio -

measured/calculated)

02/16/07 0:00

calc



Car Section	r 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 L	imit. Allows fo	r instrument and annual fluctuations.									
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis											
PQL	Practical Quantitation Limit, typically 5 times the MDL.											
QC	True Value of the Control Sample or the amount added to the Spike											
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)											
RPD	Relative Percent Difference, calculation used for Duplicate QC Types											
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)											
Sample	Value of the Sample of interest											
OC Sample T	/pes											
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate									
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank									
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix									
CCV	Continuing Calivation 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									
Samore	rpe Explanations											
Blanks	Verifies that there is no or minir	nal contaminati	on in the prep method or calibration procedure.									
Control Sa	mples Verifies the accuracy of the met	thod, including	the prep procedure.									
Duplicates	Verifies the precision of the inst	rument and/or	method.									
	tified Matrix Determines sample matrix inter	ferences, if any	<i>f</i> .									
Standard	Verifies the validity of the calibr	ation.										
A Challifier	s (Qual)											
В	Analyte concentration detected at a value between MDL	and PQL.										
Н	Analysis exceeded method hold time. pH is a field test	with an immedi	ate hold time.									
R	Poor spike recovery accepted because the other spike i	n the set fell wi	thin the given limits.									
T	High Relative Percent Difference (RPD) accepted becau	ise sample con	centrations are less than 10x the MDL.									
U	Analyte was analyzed for but not detected at the indicated MDL											
	High blank data accepted because sample concentration is 10 times higher than blank concentration											
V		n is 10 times hi										
W	High blank data accepted because sample concentration Poor recovery for Silver quality control is accepted because	n is 10 times hi										
W X	Poor recovery for Silver quality control is accepted beca Quality control sample is out of control.	n is 10 times hi use Silver ofter	n precipitates with Chloride.									
W	Poor recovery for Silver quality control is accepted beca	n is 10 times hi use Silver ofter	n precipitates with Chloride.									
W X Z	Poor recovery for Silver quality control is accepted beca Quality control sample is out of control. Poor spike recovery is accepted because sample conce	n is 10 times hi use Silver ofter	n precipitates with Chloride.									
W X Z Nothod Refere	Poor recovery for Silver quality control is accepted beca Quality control sample is out of control. Poor spike recovery is accepted because sample conce	n is 10 times hiuse Silver ofter	n precipitates with Chloride. times greater than spike concentration.									
W X Z	Poor recovery for Silver quality control is accepted becauguality control sample is out of control. Poor spike recovery is accepted because sample concestinces. EPA 600/4-83-020. Methods for Chemical Analysis of V	n is 10 times hi use Silver ofter ntration is four Vater and Wast	times greater than spike concentration. es, March 1983.									
W X Z Method Refers (1)	Poor recovery for Silver quality control is accepted becauguality control sample is out of control. Poor spike recovery is accepted because sample concesences EPA 600/4-83-020. Methods for Chemical Analysis of VEPA 600/R-93-100. Methods for the Determination of Ir	n is 10 times hi use Silver ofter ntration is four Vater and Wast norganic Substa	times greater than spike concentration. es, March 1983. ances in Environmental Samples, August 1993.									
W X Z Method Refere (1) (2)	Poor recovery for Silver quality control is accepted becauguality control sample is out of control. Poor spike recovery is accepted because sample concestinces. EPA 600/4-83-020. Methods for Chemical Analysis of V	n is 10 times hi use Silver ofter ntration is four Vater and Wast norganic Substa letals in Enviror	times greater than spike concentration. tes, March 1983. ances in Environmental Samples, August 1993. nmental Samples - Supplement I, May 1994.									
W X Z Method Refere (1) (2) (3)	Poor recovery for Silver quality control is accepted becauguality control sample is out of control. Poor spike recovery is accepted because sample concesences EPA 600/4-83-020. Methods for Chemical Analysis of VEPA 600/R-93-100. Methods for the Determination of Internation Internation of Internation Internati	n is 10 times hi use Silver ofter ntration is four Vater and Wast norganic Substa detals in Environ r, Third Edition	times greater than spike concentration. tes, March 1983. ances in Environmental Samples, August 1993. nmental Samples - Supplement I, May 1994. with Update III, December 1996.									
W X Z Z Method Refere (1) (2) (3) (5) (6)	Poor recovery for Silver quality control is accepted becar Quality control sample is out of control. Poor spike recovery is accepted because sample concesences EPA 600/4-83-020. Methods for Chemical Analysis of V EPA 600/R-93-100. Methods for the Determination of Ir EPA 600/R-94-111. Methods for the Determination of M EPA SW-846. Test Methods for Evaluating Solid Waster	n is 10 times hi use Silver ofter ntration is four Vater and Wast norganic Substa detals in Environ r, Third Edition	times greater than spike concentration. tes, March 1983. ances in Environmental Samples, August 1993. nmental Samples - Supplement I, May 1994. with Update III, December 1996.									
W X Z Method Refere (1) (2) (3) (5) (6)	Poor recovery for Silver quality control is accepted becar Quality control sample is out of control. Poor spike recovery is accepted because sample concesences EPA 600/4-83-020. Methods for Chemical Analysis of V EPA 600/R-93-100. Methods for the Determination of Ir EPA 600/R-94-111. Methods for the Determination of N EPA SW-846. Test Methods for Evaluating Solid Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water Standard Methods for Examination of Water Standard Methods for Examination of Water Standard Methods for Standard Methods for Examination of Water Standa	n is 10 times hi use Silver ofter ntration is four Vater and Wast norganic Substa letals in Enviror a, Third Edition estewater, 19th	times greater than spike concentration. times greater than spike concentration. tes, March 1983. ances in Environmental Samples, August 1993. nmental Samples - Supplement I, May 1994. with Update III, December 1996. edition, 1995.									
W X Z Method Refere (1) (2) (3) (5) (6) Comments (1)	Poor recovery for Silver quality control is accepted becar Quality control sample is out of control. Poor spike recovery is accepted because sample concesences EPA 600/4-83-020. Methods for Chemical Analysis of V EPA 600/R-93-100. Methods for the Determination of Interpa 600/R-94-111. Methods for the Determination of N EPA SW-846. Test Methods for Evaluating Solid Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for Examination of Water and Waster Standard Methods for Examination of Water and Waster Standard Methods for Examination of Water St	n is 10 times hi use Silver ofter ntration is four Vater and Wast norganic Substa letals in Enviror a, Third Edition istewater, 19th	times greater than spike concentration. times greater than spike concentration. tes, March 1983. ances in Environmental Samples, August 1993. nmental Samples - Supplement I, May 1994. with Update III, December 1996. edition, 1995. bunded values are used in the calculations.									
W X Z Method Refere (1) (2) (3) (5) (6)	Poor recovery for Silver quality control is accepted becar Quality control sample is out of control. Poor spike recovery is accepted because sample concesences EPA 600/4-83-020. Methods for Chemical Analysis of V EPA 600/R-93-100. Methods for the Determination of Ir EPA 600/R-94-111. Methods for the Determination of N EPA SW-846. Test Methods for Evaluating Solid Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water and Waster Standard Methods for the Examination of Water Standard Methods for Examination of Water Standard Methods for Examination of Water Standard Methods for Standard Methods for Examination of Water Standa	n is 10 times his use Silver ofter ntration is four Vater and Wast norganic Substated in Environ Third Edition is tewater, 19th slightly if the reare reported on	times greater than spike concentration. tes, March 1983. ances in Environmental Samples, August 1993. nmental Samples - Supplement I, May 1994. with Update III, December 1996. edition, 1995. bunded values are used in the calculations. a dry weight basis.									

REPIN03.11.00.01

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Project ID:

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Alkalinity as CaC	:03		SM2320B	- Titration					-			and the state of t	
A97/18	Туре	Aughyrad	PENERA	0.0	Sample	Francis	Units		Love	Lingue	FFE	Lantit	Dual
WG219893													
WG219893LCSW2 L60776-02DUP	LCSW DUP	01/31/07 19:42 01/31/07 21:02	WC070127-6	820	. U	812.1 U	mg/L mg/L	99	80	120	0	20	RA
WG219893LCSW5 WG219893LCSW8	LCSW	01/31/07 22:17 02/01/07 0:49	WC070127-6 WC070127-6	820 820		828.5 836.2	mg/L mg/L	101 102	80 80	120 120			
Aluminum, disso	lved		M200.7 IC	;P									·
A 97/10	Type	Amplyzed		OC.	5-11116	Found		Rec	Lower	Umper		Limit	Physic
WG219469									-				
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2		1.939	mg/L	97	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.09	0.09			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	1		1.054	mg/L	105.4	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	1	U	1.111	mg/L	111.1	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	1	U	1.08	mg/L	108	85	115	2.83	20	
WG219792													
WG219792ICV	ICV	01/29/07 21:10	11070116-1	2		2.044	mg/L	102.2	95	105			
WG219792ICB	ICB	01/29/07 21:14				U	mg/L		-0.09	0.09			
WG219792LFB	LFB	01/29/07 21:26	11070119-5	1		1.02	mg/l_	102	85	115			
L60761-05AS	AS	01/29/07 22:19	11070119-5	5	.4	5.75	mg/L	107	85	115			
L60761-05ASD	ASD	01/29/07 22:23	11070119-5	5	.4	5.88	mg/L	109.6	85	115	2.24	20	
Antimony, disso	lved		M200.8 1C	P-MS		***************************************						*************	
A.vzibereze	Tyres	Analyzed	FELICI	CIC	Sample	Foliac	Units	Rec	SECTION .	July 8	717	mi	Chral
WG219450													
WG219450ICV	ICV	01/20/07 12:24	MS070108-2	.02		.02029	mg/L	101.5	90	110			
WG219450ICB	ICB	01/20/07 12:30				U	mg/L		-0.0012	0.0012			
WG219450LFB	LFB	01/20/07 12:37	MS061218-3	.00625		.00631	mg/L	101	85	115			
L60773-01AS	AS	01/20/07 12:49	MS061218-3	.00625	U	.0059	mg/L	94.4	70	130			
L60773-01ASD	ASD	01/20/07 12:55	MS061218-3	.00625	U	.00594	mg/L	95	70	130	0.68	20	
WG219504													
WG219504ICV	ICV	01/23/07 16:14	MS070108-2	.02		.02038	mg/L	101.9	90	110			
WG219504ICB	ICB	01/23/07 16:20				U	mg/L		-0.0012	0.0012			
WG219504LFB	LFB	01/23/07 16:25	MS061218-3	.00625		.0066	mg/L	105.6	85	115			
L60773-02AS	AS	01/23/07 16:43	MS061218-3	.00625	U	.0062	mg/L	99.2	70	130			
L60773-02ASD	ASD	01/23/07 16:49	MS061218-3	.00625	U	.00631	mg/L	101	70	130	1.76	20	

Phelps Dodge Sierrita

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Arsenic, dissol	ved		M200.8 IC	P-MS									
Ac2 ID	Туре	Analyzed	PENER	ąс	Sample	Found	Units	Rec	Lower	Usper	TED	Limit	Orași
WG219450													
WG219450ICV	ICV	01/20/07 12:24	MS070108-2	.05		.05358	mg/L	107.2	90	110			
WG219450ICB	ICB	01/20/07 12:30				U	mg/L		-0.0015	0.0015			
WG219450LFB	LFB	01/20/07 12:37	MS061218-3	.05		.0517	mg/L	103.4	85	115			,
L60773-01AS	AS	01/20/07 12:49	MS061218-3	.05	.0153	.06152	mg/L	92.4	70	130			
L60773-01ASD	ASD	01/20/07 12:55	MS061218-3	.05	.0153	.06152	mg/L	92.4	70	130	0	20	
WG219504													
WG219504ICV	ICV	01/23/07 16:14	MS070108-2	.05		.05408	mg/L	108.2	90	110			
WG219504ICB	ICB	01/23/07 16:20				U	mg/L		-0.0015	0.0015			
WG219504LFB	LFB	01/23/07 16:25	MS061218-3	.05		.054	mg/L	108	85	115			
L60773-02AS	AS	01/23/07 16:43	MS061218-3	.05	.0026	.05491	mg/L	104.6	70	130			
L60773-02ASD	ASD	01/23/07 16:49	MS061218-3	.05	.0026	.05574	mg/L	106.3	70	130	1.5	20	
Barium, dissolv	/ed		M200.7 IC	P	···· 4 - I - I - I - I - I - I - I - I - I -		***************************************			· · · · · · · · · · · · · · · · · · ·		* * *****	
ACZIB	Type	Analyzed			Sample	Found			Levier	lione	W 10 5	Limit	
WG219467													
WG219467ICV	ICV	01/20/07 23:38	II061230-1	2		2.0573	mg/L	102.9	95	105			
WG219467ICB	ICB	01/20/07 23:42	110012001	-		U	mg/L	102.3	-0.009	0.009			
WG219467LFB	LFB	01/20/07 23:58	II070119-5	.5		.5292	mg/L	105.8	-0.009	115			
L60762-04AS	AS	01/21/07 1:02	II070119-5	.5	.032	.4957	mg/L	92.7	85	115			
L60762-04ASD	ASD	01/21/07 1:05	II070119-5	.5	.032	.5197	mg/L	97.5	85	115	4.73	20	
WG219469							Ü						
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2		2.0345	mg/L	101.7	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.009	0.009			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	.5		.5318	mg/L	106.4	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	.5	.041	.5726	mg/L	106.3	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	.5	.041	.5191	mg/L	95.6	85	115	9.8	20	
Beryllium, diss	olved		M200.8 IC	P-MS		T				***************************************			
ACZ ID	Type	Analyzed		0)0	Sample	Found	Units	Fee	Lower	Upper	RPD	Limit	Cara
WG219450													
WG219450ICV	ICV	01/20/07 12:24	MS070108-2	.05		.04807	mg/L	96.1	90	110			
WG219450ICB	ICB	01/20/07 12:30		,,,,		.00013	mg/L	00.1	-0.0003	0.0003			
WG219450LFB	LFB	01/20/07 12:37	MS061218-3	.05		.04753	mg/L	95.1	85	115			
L60773-01AS	AS	01/20/07 12:49	MS061218-3	.05	U	.04561	mg/L	91.2	70	130			
L60773-01ASD	ASD	01/20/07 12:55	MS061218-3	.05	U	.04792	mg/L	95.8	70	130	4.94	20	
WG219504													
WG219504ICV	ICV	01/23/07 16:14	MS070108-2	.05		.04918	mg/L	98.4	90	110			
WG219504ICB	ICB	01/23/07 16:20				U	mg/L		-0.0003	0.0003			
WG219504LFB	LFB	01/23/07 16:25	MS061218-3	.05		.05024	mg/L	100.5	85	115			
L60773-02AS	AS	01/23/07 16:43	MS061218-3	.05	U	.04775	mg/L	95.5	7 0	130			
L60773-02ASD	ASD	01/23/07 16:49	MS061218-3	.05	U	.04949	mg/L	99	70	130	3.58	20	

Phelps Dodge Sierrita

Project ID:

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Cadmium, disso	ived		M200.8 I	CP-MS									
A 7/10	771	Analyzed	PONSON	QC.	Samele	Found	Units	Rec	E F T T C T	Upper	F(P/S)	i i i i	612
WG219450													
WG219450ICV	ICV	01/20/07 12:24	MS070108-2	.05		.05025	mg/L	100.5	90	110			
WG219450ICB	ICB	01/20/07 12:30				U	mg/L		-0.0003	0.0003			
WG219450LFB	LFB	01/20/07 12:37	MS061218-3	.05		.04853	mg/L	97.1	85	115			
L60773-01AS	AS	01/20/07 12:49	MS061218-3	.05	.0001	.04408	mg/L	88	70	130			
L60773-01ASD	ASD	01/20/07 12:55	MS061218-3	.05	.0001	.04489	mg/L	89.6	70	130	1.82	20	
WG219504			1	,									
WG219504ICV	ICV	01/23/07 16:14	MS070108-2	.05		.05066	mg/L	101.3	90	110			
WG219504ICB	ICB	01/23/07 16:20				U	mg/L		-0.0003	0.0003			
WG219504LFB	LFB	01/23/07 16:25	MS061218-3	.05		.05035	mg/L	100.7	85	115			
L60773-02AS	AS	01/23/07 16:43	MS061218-3	.05	U	.04668	mg/L	93.4	70	130			
L60773-02ASD	ASD	01/23/07 16:49	MS061218-3	.05	U	.04737	mg/L	94.7	70	130	1.47	20	
Calcium, dissolv	/ed		M200.7 I	CP									
A@Z lb	101	Avalyzed	PONSON	Q¢.	Sample	Frence	Units	Res	Lower	Upper	271		Ottel
WG219469			•										
WG219469ICV	ICV	01/21/07 2:22	11061230-1	100		97.34	mg/L	97.3	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.6	0.6			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	67.95918		70.38	mg/L	103.6	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	67.95918	501	557.1	mg/L	82.5	85	115			M3
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	67.95918	501	539.39	mg/L	56.5	85	115	3.23	20	M3
WG219792						•							
WG219792ICV	ICV	01/29/07 21:10	11070116-1	100		103.33	mg/L	103.3	95	105			
WG219792ICB	ICB	01/29/07 21:14				U	mg/L		-0.6	0.6			
WG219792LFB	LFB	01/29/07 21:26	11070119-5	67.95918		70.38	mg/L	103.6	85	115			
L60761-05AS	AS	01/29/07 22:19	11070119-5	339.7959	548	896.5	mg/L	102.6	85	115			
L60761-05ASD	ASD	01/29/07 22:23	11070119-5	339.7959	548	906.2	mg/L	105.4	85	115	1.08	20	
Chloride			M325.2 -	Colorimetri	С			***************************************					,
APZ D	Турга	Troji Pada	PENISON	0.0	Sample	Foliate	Units	Fore	24)77-2	Upper	T F E		One
WG219739		* .											
WG219739ICV	ICV	01/27/07 20:58	WI061113-3	55		56.9	mg/L	103.5	90	110			
WG219739ICB	ICB	01/27/07 20:59				U	mg/L		-3	3			
WG219739LFB1	LFB	01/27/07 21:00	WI061127-1	30		30.4	mg/L	101.3	90	11 0			
L60762-03AS	AS	01/27/07 21:15	WI061127-1	60	83	141.7	mg/L	97.8	90	110			
L60762-04DUP	DUP	01/27/07 21:17			163	163.9	mg/L				0.6	20	
WG219739LFB2	LFB	01/27/07 21:27	WI061127-1	30		31.4	mg/L	104.7	90	110			
L60773-02AS	AS	01/27/07 21:29	WI061127-1	150	128	235.6	mg/L	71.7	90	110			M2
L60773-03DUP	DUP	01/27/07 21:31			127	128.9	mg/L				1.5	20	

Inorganie QC Summany

Phelps Dodge Sierrita

Project ID:

OJ00XN

Chromium, diss	olved		M200.7	ICP									
ACZ IB	Type	Analyzed	PRAMEON		Sample	Found	Units	Rec	Lower	Ligater	RED	Limit	Olem
WG219467													
WG219467ICV	ICV	01/20/07 23:38	11061230-1	2		1.959	mg/L	98	95	105			
WG219467ICB	ICB	01/20/07 23:42				U	mg/L		-0.03	0.03			
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.522	mg/L	104.4	85	115			
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.475	mg/L	95	85	115			
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	U	.496	mg/L	99.2	85	115	4.33	20	
WG219469													•
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2		1.964	mg/L	98.2	95	105			19
WG219469ICB	ICB	01/21/07 2:26				·U	mg/L		-0.03	0.03			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	5		.533	mg/L	106.6	85.	115			
L60773-02AS	AS ·	01/21/07 2:49	11070119-5	.5	U	.522	mg/L	104.4	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	.5	U	.485	mg/L	97	85	115	7.35	20	
Cobalt, dissolve	d		M200.7 I	ICP	***************************************								
ACZ ID	Type	Assolyzed	Provision	0.0		Foliati		Rec	(0.00)	Linner	7 7 7		Qual
WG219467						•							
WG219467ICV	ICV	01/20/07 23:38	II061230-1	2		1.941	mg/L	97.1	95	105			
WG219467ICB	ICB	01/20/07 23:42				U	mg/L		-0.03	0.03			
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.52	mg/L	104	85	115			
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.45	mg/L	90	85	115			
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	U	.481	mg/L	96.2	85	115	6.66	20	
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2		1.945	mg/L	97.3	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.03	0.03			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	.5		.524	mg/L	104.8	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	.5	U	.497	mg/L	99.4	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	,5	U	.454	mg/L	90.8	85	115	9.04	20	
Conductivity @:	25C		M120.1 -	Meter									
ACZ ID	Туре	Analyzed	PONISON	SIC -	Samole	Found	Units	Rec	Lower	ang er	8(9))	Limit	Qual
WG219911							•		* • .				
WG219911PBW1	PBW	02/01/07 14:16				5.2	ımhos/cn		-10	10			
WG219911LCSW1	LCSW	02/01/07 14:18	PCN25346	1408.8		1451	umhos/cn	103	80	120			
L60777-03DUP	DUP	02/01/07 14:35			3610	3640	ımhos/cn				0.8	20	
WG219911PBW2	PBW	02/01/07 14:53				5.9	ımhos/cn		-10	10			
WG219911LCSW2	LCSW	02/01/07 14:55	PCN25346	1408.8		1428	ımhos/cn	101.4	80	120			
WG219911LCSW3	LCSW	02/01/07 15:04	PCN25346	1408.8	**	1422	ımhos/cn	100.9	80	120			

Phelps Dodge Sierrita

Project ID:

OJ00XN

Copper, dissolv	ed		M200.7 I	CP									
A 672-10	Types	Analyzed	Perfector	61.6	Sample	Forms	Units	Flec	Lower	Upper		Lineil	Caraca
WG219792													
WG219792ICV	ICV	01/29/07 21:10	11070116-1	2		1.928	mg/L	96.4	95	105			
WG219792ICB	ICB	01/29/07 21:14				υ	mg/L		-0.03	0.03			•
WG219792LFB	LFB	01/29/07 21:26	11070119-5	.5		.455	mg/L	91	85	115			
L60761-05AS	AS	01/29/07 22:19	11070119-5	2.5	U	2.108	mg/L	84.3	85	115			M2
L60761-05ASD	ASD	01/29/07 22:23	11070119-5	2.5	U	2.111	mg/L	84.4	85	115	0.14	20	M2
WG219782													
WG219782ICV	ICV	01/30/07 20:01	11070116-1	2		1.944	mg/L	97.2	95	105			
WG219782ICB	ICB	01/30/07 20:05				U	mg/L		-0.03	0.03			
WG219782LFB	LFB	01/30/07 20:21	11070119-5	.5		.49	mg/L	98	85	115			
L60685-05AS	AS	01/30/07 20:29	11070119-5	.5	U	.51	mg/L	102	85	115			
L60685-05ASD	ASD	01/30/07 20:33	11070119-5	.5	U	.513	mg/L	102.6	85	115	0.59	20	
Cyanide, total			M335.4 -	Colorimetri	c w/ disti	llation					··· ···········		***************************************
AGZIB	Type	Analyzad	7000	Tale .	Sample	Found	Units		lawer	Librer		Lanti	
WG219685													,
WG219685ICV	ICV	01/26/07 10:36	WI070126-3	.3		.29	mg/L	96.7	90	110			
WG219685ICB	ICB	01/26/07 10:37	***************************************	,,,		U	mg/L	00.1	-0.015	0.015			
WG219617LRB	LRB	01/26/07 10:38				U	mg/L		-0.015	0.015			
WG219617LFB	LFB	01/26/07 10:38	Wi070111-7	.2		.1926	mg/L	96.3	90	110			
L60758-03DUP	DUP	01/26/07 10:40			.028	.0253	mg/L				10.1	20	RA
L60758-04LFM	LFM	01/26/07 10:42	WI070111-7	.2	.036	.2238	mg/L	93.9	90	110			
L60762-04DUP	DUP	01/26/07 10:52			.006	U	mg/L				200	20	RA
WG219655LRB	LRB	01/26/07 11:03				U	mg/L		-0.015	0.015			
WG219655LFB	LFB	01/26/07 11:04	WI070111-7	.2		.1898	mg/L	94.9	90	110			
L60773-01DUP	DUP	01/26/07 11:06			.016	.0158	mg/L				1.3	20	RA
L60773-02LFM	LFM	01/26/07 11:09	WI070111-7	.2	.063	.2702	mg/L	103.6	90	110			
L60762-05LFM	LFM	01/26/07 11:14	WI070111-7	.2	.014	.2061	mg/L	96.1	90	110			
Fluoride			SM4500F	-C									
ACT ID	Type	Ancilyacis	POUSON	e e	Sample	Found	Units		Lower	Upper		Limit	Clupt
WG219851													
WG219851ICV	ICV	01/31/07 13:30	WC070126-1	1.996		1.97	mg/L	98.7	95	105			
WG219851ICB	ICB	01/31/07 13:32				U	mg/L		-0.3	0.3			
WG219851LFB	LFB	01/31/07 13:38	WC061021-1	4.99902		5.31	mg/L	106.2	90	110			
L60775-02AS	AS	01/31/07 14:52	WC061021-1	4.99902	.4	5.04	mg/L	92.8	85	115			
L60775-02DUP	DUP	01/31/07 14:54			.4	.34	mg/L				16.2	20	RA

Phelps Dodge Sierrita

Project ID:

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Iron, dissolved			M200.7 I	СР									
ACZ ID	Type	Analyzod	PCAUSICAL	0.0	Samble	Forme	Units	Rec	Lower	Upper	RPD	Limit	Ouel
WG219496													
WG219496ICV	ICV	01/25/07 19:19	11061230-1	2		1.961	mg/L	98.1	95	105			
WG219496ICB	ICB	01/25/07 19:24				U	mg/L		-0.06	0.06			
WG219496LFB	LFB	01/25/07 19:38	11070119-5	1		1.08	mg/L	108	85	115			
L60773-02AS	AS	01/25/07 19:45	11070119-5	1	.1	1.224	mg/L	112.4	85	115			
L60773-02ASD	ASD	01/25/07 19:48	11070119-5	1	.1	1.236	mg/L	113.6	85	115	0.98	20	
WG219703													
WG219703ICV	ICV	01/29/07 11:15	11061230-1	2		2.006	mg/L	100.3	95	105			
WG219703ICB	ICB	01/29/07 11:20		*		U	mg/L		-0.06	0.06			
WG219703LFB	LFB	01/29/07 11:33	11070119-5	1		1.034	mg/L	103.4	85	115			
L60758-02AS	AS	01/29/07 12:30	11070119-5	1	U	1.07	mg/L	107	85	115			
L60758-02ASD	ASD	01/29/07 12:33	11070119-5	1	U	1.085	mg/L	108.5	85	115	1.39	20	
Lead, dissolved	I		M200.8 I	CP-MS			-	***********					
ACZ III	Tiple	Analyzed	TONE ON	e is	Sample	Found	Linits	Rec	Lower	Jpon	RPE		Orral
WG219450													
WG219450ICV	ICV	01/20/07 12:24	MS070108-2	.05		.05137	mg/L	102.7	90	110			
WG219450ICB	ICB	01/20/07 12:30				.00012	mg/L		-0.0003	0.0003			
WG219450LFB	LFB	01/20/07 12:37	MS061218-3	.05		.04672	mg/L	93.4	85	115			
L60773-01AS	AS	01/20/07 12:49	MS061218-3	.05	.0003	.04783	mg/L	95.1	70	130			
L60773-01ASD	ASD	01/20/07 12:55	MS061218-3	.05	.0003	.04849	mg/L	96.4	70	130	1.37	20	
WG219504													
WG219504ICV	ICV	01/23/07 16:14	MS070108-2	.05		.05391	mg/L	107.8	90	110			
WG219504ICB	ICB	01/23/07 16:20				U	mg/L		-0.0003	0.0003			
WG219504LFB	LFB	01/23/07 16:25	MS061218-3	.05		.05067	mg/L	101.3	85	115			
L60773-02AS	AS	01/23/07 16:43	MS061218-3	.05	.0002	.05181	mg/L	103.2	70	130			
L60773-02ASD	ASD	01/23/07 16:49	MS061218-3	.05	.0002	.0521	mg/L	103.8	70	130	0.56	20	
Magnesium, dis			M200.7 I	CP								***************************************	
AVZ ID	Tyre	Amilyzai	PENSON	5)6	Sample	Fernand	11:15	Ret	Lower	Baper	FPB	Limit	Qual
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	100		95.47	mg/L	95.5	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.6	0.6			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	54.98614		57.04	mg/L	103.7	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	54.98614	101	161.23	mg/L	109.5	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	54.98614	101	154.32	mg/L	97	85	115	4.38	20	
WG219792													
WG219792ICV	ICV	01/29/07 21:10	11070116-1	100		100.36	mg/L	100.4	95	105			
WG219792ICB	ICB	01/29/07 21:14				U	mg/L		-0.6	0.6			
WG219792LFB	LFB	01/29/07 21:26	11070119-5	54.98614		56.42	mg/L	102.6	85	115			
L60761-05AS	AS	01/29/07 22:19	11070119-5	274.9307	544	813.2	mg/L	97.9	85	115			
L60761-05ASD	ASD	01/29/07 22:23	II070119-5	274.9307	544	821.1	mg/L	100.8	85	115	0.97	20	

Phelps Dodge Sierrita

Project ID:

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Manganese, dis	solved		M200.7	ICP									
ACZ IB	Турс	Apply aga	PONSEN	E(C	Samo	Falled	Lin its	Fig.	Lower	Saper	RPD	Limit	Ormi
WG219467													
WG219467ICV	ICV	01/20/07 23:38	II061230-1	2		1.9439	mg/L	97.2	95	105			
WG219467ICB	ICB-	01/20/07 23:42				U	mg/L		-0.015	0.015			
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.5242	mg/L	104.8	85	115			
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.4683	mg/L	93.7	85	115			
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	U	.4915	mg/L	98.3	85	115	4.83	20	
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2 .		1.9365	mg/L	96.8	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.015	0.015			
WG219469LFB	LFB.	01/21/07 2:41	11070119-5	.5		.5241	mg/L	104.8	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	.5	U	.517	mg/L	103.4	. 85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	.5	U	.4727	mg/L	94.5	85	115	8.95	20	
Mercury, dissolv	/ed		M245.1	CVAA				·····	i				**************************************
00Z ID		Auchtree	FortStell		Sample	Found	Units		Lower	Upper	T P D	Limit	\$1021
WG219539													
WG219539ICV	ICV	01/25/07 9:36	11070115-2	.005		.00488	mg/L	97.6	95	105			
WG219539ICB	ICB	01/25/07 9:39				U	mg/L		-0.0002	0.0002			
WG219539LRB	LRB	01/25/07 9:41				U	mg/L		-0.00044	0.00044			
WG219539LFB	LFB	01/25/07 9:43	11070104-3	.002		.00193	mg/L	96.5	85	115			
L60762-08LFM	LFM	01/25/07 9:47	11070104-3	.002	U	.00205	mg/L	102.5	85	115			
L60762-08LFMD	LFMD	01/25/07 9:49	11070104-3	.002	U-	.00202	mg/L	101	85	115	1.47	20	
Molybdenum, di	ssolve	<u></u>	M200.7	ICP						<u></u>			****
A67/D	Type	Analyzed	PRIMIN	(SIC	Sample	Found	Units	Rec	Overer	Upper	FPD	i ini	Rosel
WG219469											•••••	***************************************	
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2		1.991	mg/L	99.6	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.03	0.03			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	.5		.538	mg/L	107.6	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	.5	.06	.579	mg/L	103.8	85	115		~	
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	.5	.06	.547	mg/L	97.4	85	115	5.68	20	
WG219792													
WG219792ICV	ICV	01/29/07 21:10	11070116-1	2		2.089	mg/L	104.5	95	105			
WG219792ICB	ICB	01/29/07 21:14				U	mg/L		-0.03	0.03			
WG219792LFB	LFB	01/29/07 21:26	11070119-5	.5		.507	mg/L	101.4	85	115			
L60761-05AS	AS	01/29/07 22:19	11070119-5	2.5	.06	2.694	mg/L	105.4	85	115			
L60761-05ASD	ASD	01/29/07 22:23	II070119-5	2.5	.06	2.657	mg/L	103.9	85	115	1.38	20	

Inorganic QC
-5493 Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Nickel, dissolve	d		M200.7 I	CP		e							
- C7, 13	7.912	Analyzed	ensus en	Ø)C	Samula	Found	Units	Res	l ourer			Limit	Caral
WG219467													
WG219467ICV	ICV	01/20/07 23:38	11061230-1	2		1.954	mg/L	97.7	95	105			
WG219467ICB	ICB	01/20/07 23:42				U	mg/L		-0.03	0.03			
WG219467LFB	LFB	01/20/07 23:58	11070119-5	.5		.517	mg/L	103.4	85	115			,
L60762-04AS	AS	01/21/07 1:02	11070119-5	.5	U	.458	mg/L	91.6	85	115			
L60762-04ASD	ASD	01/21/07 1:05	11070119-5	.5	U	.488	mg/L	97.6	85	115	6.34	20	
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2		1.942	mg/L	97.1	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.03	0.03			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	.5		.515	mg/L	103	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	.5	U	.5	mg/L	100	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	.5	U	.463	mg/L	92.6	85	115	7.68	20	
Nitrate/Nitrite as	s N		M353.2 -	H2SO4 pre	eserved								
ACZ 113	Type	Analyzed		GIS.		Found				Lipper	RIPE	Limit	Ocea
WG219725													
WG219725ICV	ICV	01/26/07 18:12	WI061207-1	2.416		2.311	mg/L	95.7	90	110			
WG219725ICB	ICB	01/26/07 18:14				U	mg/L		-0.06	0.06			
WG219727						_			0.00	0.00			
WG219727ICV	ICV	01/26/07 19:25	WI061207-1	2.416		2.314	mg/L	95.8	90	110			
WG219727ICB	ICB	01/26/07 19:26	VVI001207-1	2.410		2.314 U	mg/L	93.0	-0.06	0.06			
WG219727LFB	LFB	01/26/07 19:27	WI060906-4	2		1.899	mg/L	95	90	110			
L60762-05AS	AS	01/26/07 19:48	WI060906-4	2	.73	2.771	mg/L	102.1	90	110			
L60762-06DUP	DUP	01/26/07 19:51			.9	.902	mg/L	102.1	00	110	0.2	20	
pH (lab)			M150.1 -	Electromet	ric								***************************************
AGZ ID	Tyre			9.6	Samue	Outed	Units	Reg	Lower	loper		Limit	Oral
WG219893													
WG219893LCSW3	LCSW	01/31/07 19:45	PCN25442	6		6.05	units	100.8	90	110			
L60776-02DUP	DUP	01/31/07 21:02	DONIGE 440		5.5	5.44	units				1.1	20	
WG219893LCSW6 WG219893LCSW9	LCSW	01/31/07 22:21	PCN25442 PCN25442	6		6.06	units	101	90	110			
VVG2 19093LC3VV9	LCGVV	02/01/07 0:52	PGN25442	6		6.06	units	101	90	110			
Potassium, diss	olved		M200.7 I	CP									Processing and the second and the second
. 97	Tyre	Arralyzari			Sample	Forest	Linits	i e	Lenarer	Chapter	RPD	Limit	Onal
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	20		20.1	mg/L	100.5	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.9	0.9			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	99.51014		106.45	mg/L	107	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	99.51014	12.7	130.37	mg/L	118.2	85	115			MA
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	99.51014	12.7	124.17	mg/L	112	85	115	4.87	20	
WG219703													
WG219703ICV	ICV	01/29/07 11:15	11061230-1	20		20.55	mg/L	102.8	95	105			
WG219703ICB	ICB	01/29/07 11:20				U	mg/L		-0.9	0.9			
WG219703LFB	LFB	01/29/07 11:33	11070119-5	99.51014		100.76	mg/L	101.3	85	115			
L60758-02AS	AS	01/29/07 12:30	11070119-5	99.51014	7.9	110.08	mg/L	102.7	85	115			
L60758-02ASD	ASD	01/29/07 12:33	11070119-5	99.51014	7.9	112.33	mg/L	104.9	85	115	2.02	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Residue, Filtera	ble (TD	S) @180C	M160.1 -	Gravimetric									Demokrati despera Princis
AGZ ID	1912	A17117703			Sample	Found	Units	Rec	Conse		RPD	Limit	Const
WG219569													
WG219569PBW	PBW	01/23/07 16:40				10	mg/L		-20	20			
WG219569LCSW	LCSW	01/23/07 16:42	PCN26282	261		276	mg/L	105.7	80	120			
L60773-04DUP	DUP	01/23/07 16:55			2780	2790	mg/L.				0.4	20	
Selenium, disso	lved		M200.8 I	CP-MS								***************************************	
A(86%) 18	Type	Andlezea	PENISON	616	Samole	Found	Inits	Rec	Lower			Limit	Open)
WG219504													
WG219504ICV	ICV	01/23/07 16:14	MS070108-2	.05		.05331	mg/L	106.6	90	110			
WG219504ICB	ICB	01/23/07 16:20				U	mg/L		-0.0003	0.0003		-	
WG219504LFB	LFB	01/23/07 16:25	MS061218-3	.05		.05045	mg/L	100.9	85	115			
L60773-02AS	AS	01/23/07 16:43	MS061218-3	.05	.001	.05569	mg/L	109.4	70	130			
L60773-02ASD	ASD	01/23/07 16:49	MS061218-3	.05	.001	.05778	mg/L	113.6	70	130	3.68	20	
Sodium, dissolv	ed		M200.7 I	CP ·									
Ac7 ID	Тура	Antilogical		e la la		Frigit	Units	Ret	Lever	lprer	RPD	1.77	Carri
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	100		99.6	mg/L	99.6	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.9	0.9			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	99.90786		106.82	mg/L	106.9	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	99.90786	188	300.21	mg/L	112.3	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	99.90786	188	282.85	mg/L	94.9	85	115	5.95	20	
WG219703													
WG219703ICV	. ICV	01/29/07 11:15	11061230-1	100		102.45	mg/L	102.5	95	105			
WG219703ICB	ICB	01/29/07 11:20				U	mg/L		-0.9	0.9			
WG219703LFB	LFB	01/29/07 11:33	11070119-5	99.90786		101.37	mg/L	101.5	85	115			
L60758-02AS	AS	01/29/07 12:30	11070119-5	99.90786	156	247.04	mg/L	91.1	85	115			
L60758-02ASD	ASD	01/29/07 12:33	11070119-5	99.90786	156	253.74	mg/L	97.8	85	115	2.68	20	
Sulfate			SM45.00	SO4-D									
ACZ ID	Type	Arrabyzad	FORECR	ac	Serriella	French	Units	Ret	Lower	Spren	7.77	Limit	Shall
WG219484													
WG219484PBW	PBW	01/22/07 11:26				U	mg/L		-30	30			
WG219484LCSW	LCSW	01/22/07 11:28	WC061207-2	100		98	mg/L	98	80	120			
L60774-01DUP	DUP	01/22/07 12:25			3340	3457	mg/L	·		-	3.4	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Thallium, disso	ived		M200.8 IC	P-MS									
	Type	Analyzed	FCNSON	QC	Sample	61101		Rec	core	Liopen	RPD	Limit	Cuel
WG219450													
WG219450ICV	ICV	01/20/07 12:24	MS070108-2	.056		.05596	mg/L	99.9	90 °	110			
WG219450ICB	ICB	01/20/07 12:30				U-	mg/L		-0.0003	0.0003			
WG219450LFB	LFB	01/20/07 12:37	MS061218-3	.05		.04827	mg/L	96.5	85	115			
L60773-01AS	AS	01/20/07 12:49	MS061218-3	.05	U	.04996	mg/L	99.9	70	130			
L60773-01ASD	ASD	01/20/07 12:55	MS061218-3	.05	U	.05105	mg/L	102.1	7 0	130	2.16	20	
WG219504													
WG219504ICV	ICV	01/23/07 16:14	MS070108-2	.056		.05809	mg/L	103.7	90	110			
WG219504ICB	ICB	01/23/07 16:20				U	mg/L		-0.0003	0.0003			
WG219504LFB	LFB	01/23/07 16:25	MS061218-3	.05		.05211	mg/L	104.2	85	115			
L60773-02AS	AS	01/23/07 16:43	MS061218-3	.05	U	.05441	mg/L	108.8	70	130			
L60773-02ASD	ASD	01/23/07 16:49	MS061218-3	.05	U	.05462	mg/L	109.2	70	130	0.39	20	
Zinc, dissolved			M200.7 IC	Ρ.									
Acz II	Type	Anglyzed	FINNEA	GC.	Sample	101111	Units	7	Lower	Lipper	RPD	Lines	Qual
WG219469													
WG219469ICV	ICV	01/21/07 2:22	11061230-1	2		1.961	mg/L	98.1	95	105			
WG219469ICB	ICB	01/21/07 2:26				U	mg/L		-0.03	0.03			
WG219469LFB	LFB	01/21/07 2:41	11070119-5	.5		.527	mg/L	105.4	85	115			
L60773-02AS	AS	01/21/07 2:49	11070119-5	.5	U	.552	mg/L	110.4	85	115			
L60773-02ASD	ASD	01/21/07 2:53	11070119-5	.5	U	.533	mg/L	106.6	85	115	3.5	20	
WG219792													
WG219792ICV	ICV	01/29/07 21:10	11070116-1	2		1.985	mg/L	99.3	95	105			
WG219792ICB	ICB	01/29/07 21:14				U	mg/L		-0.03	0.03			
WG219792LFB	LFB	01/29/07 21:26	II070119-5	.5		.506	mg/L	101.2	85	115			
L60761-05AS	AS	01/29/07 22:19	11070119-5	2.5	179	170.337	mg/L	-346.5	85	115			M3
L60761-05ASD	ASD	01/29/07 22:23	11070119-5	2.5	179	170.51	mg/L	-339.6	85	115	0.1	20	M3

Inorganic Extended Qualifier Report

ACZ Project ID: L60773

Phelps Dodge Sierrita

ACZ ID	1017 (1811)	PARAMETER	MEHOD		DESCRIPTION
L60773-01	WG219450	Beryllium, dissolved	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Data is useable because analyte concentration in client sample is less than the MDL.
			M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG219792	Copper, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219703	Sodium, dissolved	M200.7 ICP	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
	WG219792	Zinc, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219893	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60773-02	WG219504	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG219469	Calcium, dissolved	M200.7 ICP	M3	
		Potassium, dissolved	M200.7 ICP	AM	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219739	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	. RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219893	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60773-03	WG219504	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG219469	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219739	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219685	. Cyanide, totał	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	RA .	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219893	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Inorganic Extended **Qualifier Report**

Phelps Dodge Sierrita

A67 [B	WorkNum	PARAMETER	METHOD		DESCRIPTION
L60773-04	WG219504	Beryllium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG219469	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219739	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219851	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219893	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60773

No certification qualifiers associated with this analysis

Sample Receipt 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60773 1/19/2007

Date Received:

Received By: Date Printed:

1/19/2007

Research and Vertill weighted to

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

NO	NA
	Х
	Х
	Х
Х	
	X

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
1011	2.2	14

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

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60773

Date Received:

1/19/2007

Received By:

Samos Courantes Brasilianos

SAMPLE				YG< 2	-			, .	RAD	ID
L60773-01		. Y	Υ	The same of the sa	Andrea of State of St	A STATE OF THE PARTY OF THE PAR	morrowania.			
L60773-02	IW-9	Υ	Y							
L60773-03	IW-18	Y	Y							
L60773-04	DUP011807A	Υ	Y							

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G.	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 µR/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By:		

COC Number:

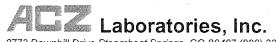
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P.O. Box 527, Green Valley, AZ 85622

ANALYTICAL REQUEST SHEET Chain of Custody PO# - 0J00XN

Page / of /

				لر	Presi	Preservatives	68		REAL CONTRACTOR	en e	Field Data	ata				o lubum
Lab Use Only	Location	Date	e i	# of Cont.	H ₂ 50 s	NaOH	Unpres.	,05.	PH	Cond	Temp				Analysis Requested	
	IW-4	1/18/2007	7:50	8	Ξ	<u></u>	}	5	6.81	1 2210	0 22.4				Ambient Suite	constructive type
	IW-9	1/18/2007	8:15	æ	1	-	1 2	2	7.40	0 1690	0 22.6				Ambient Suite	ana
	IW-18	1/18/2007	7:20	ဆ	~	-	1 2	5	7.26	6 1460	15.4				Ambient Suite	ununununpo
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Report Result	Report Results To: Billy Dorris		na andros de la deservición de la defenda de la deservición de la defenda de la defenda de la defenda de la de		1	Teleph	one N	0. 520	Telephone No. 520-648-8873	3		¥ .	Fax No. 520-648-8608	520-648	-8608	manatay pen
Samples Subi	Samples Submitted on Ice: (Yes) / No			777	Ò					ر د د		1		ry Name	Laboratory Name and Address:	andromen said
Surrendered By: 7	15:11 7. Da	, m	Received By:						Date:		Time	Date: 1.1/10 Time 10: >0		ACZ Laboratory	oratory	
Surrendered By:	By:	Variance de la companya de la compan	Received By:	- 1	1				Date:		Time:			30400 D	30400 Downhill Drive	e grant and the second
Comments/St	Comments/Special Instructions:	And the second s	annes de la company de la comp	n decembrance en la maintante de la companyon		القائد والمحادثة والمتالكة	ation and a second		Burney Company of the	and the second s	de la companya de la	A		Phone: 8	Steamboat Springs, CC 60467 Phone: 8003345493	necessaria de la constanta de
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Revised Analytical Report

March 12, 2007

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bill Dorris Phelps Dodge Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Project ID: OJ00XN ACZ Project ID: L60758

Bill Dorris:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 18, 2007. This project was assigned to ACZ's project number, L60758. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60758. 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 the requirements of NELAC.

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

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

12/Mar/07

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.





REPAD.01.11.00.01

L60758: Page 1 of 25

Case Narrative

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

March 12, 2007

Project ID: OJ00XN ACZ Project ID: L60758

Sannie Receipt

ACZ Laboratories, Inc. (ACZ) received 8 ground water samples from Phelps Dodge Sierrita on January 18, 2007. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L60758. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

This project has been revised to include a separate abbreviated list of analytes, per client request.

Folding Times

All analyses were performed within EPA recommended holding times.

Samole Analysis

These samples were analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

REPAD.03.06.05.01

L60758: Page 2 of 25

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-14

ACZ Sample ID:

L60758-02

Date Sampled:

01/16/07 10:50

Date Received:

01/18/07

Sample Matrix:

Ground Water

Field Data									
Parameter	EPA Method	Rostili	Qual	100	Units	MDL	POL	Date	
Conductivity (Field)	Field Measurement	1484			mS/cm			01/16/07 10:50	bd
pH (Field)	Field Measurement	6.7			units			01/16/07 10:50	bd
Temperature (Field)	Field Measurement	22.4			C			01/16/07 10:50	bd
Metals Analysis									
Parameter	EPA Method	Result	Qual	10	Units	MDL	POL	Date	
Calcium, dissolved	M200.7 ICP	524		*	mg/L	0.2	1	01/25/07 20:40	gme
Magnesium, dissolved	M200.7 ICP	118		*	mg/L	0.2	1	01/25/07 20:40	gme
Potassium, dissolved	M200.7 ICP	8.1			mg/L	0.3	2	01/25/07 20:40	gme
Sodium, dissolved	M200.7 ICP	161		. *	mg/L	0.3	2	01/25/07 20:40	gme
Wet Chemistry									
Parameter	EPA Method	Result	Qual		Units	i Di		Profession 1	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as	The desired of the de	125			mg/L	2	20	01/29/07 0:00	· ct
CaCO3		120			mg/ =	۲.	20	01123101 0.00	. 01
Carbonate as CaCO3	3		U		mg/L	2	20	01/29/07 0:00	ct
Hydroxide as CaCO3	•		U	÷	mg/L	. 2	20	01/29/07 0:00	ct
Total Alkalinity		125			mg/L	2	20	01/29/07 0:00	ct
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-0.3			%			02/07/07 0:00	calc
Sum of Anions		43.5			meq/L	0.1	0.5	02/07/07 0:00	calc
Sum of Cations		43.2			meq/L	0.1	0.5	02/07/07 0:00	calc
Chloride	M325.2 - Colorimetric	122			mg/L	. 2	10	01/27/07 21:03	pjb
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/27/07 18:56	cas/cl
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.39			mg/L	0.02	0.1	01/25/07 21:26	pjb
Residue, Filterable	M160.1 - Gravimetric	3050			mg/L	10	20	01/22/07 8:53	lcp
(TDS) @180C									
Sulfate	SM4500 SO4-D	1790			mg/L	10	50	01/20/07 13:15	seb
TDS (calculated)	Calculation	2800			mg/L	10	50	02/07/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.09						02/07/07 0:00	calc

Arizona license number: AZ0102

L60758: Page 3 of 25

Inorganic Analytical Results

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-15

ACZ Sample ID:

L60758-03

Date Sampled:

01/16/07 10:40

Date Received:

01/18/07

Sample Matrix:

Ground Water

				50001245-000-000			elitera-sandensiali		
Field Data									
Parameter	EPA Method	Result	Ouel	ΧO	Units	MDL	POL	Detto	100
Conductivity (Field)	Field Measurement	1420			mS/cm			01/16/07 10:40	bd
pH (Field)	Field Measurement	7.0			units			01/16/07 10:40	bd
Temperature (Field)	Field Measurement	23.9			C			01/16/07 10:40	bd
Metals Analysis									
Parameter	EPA Method	Postul	One	(C)	Units	MDL	POL	Date	
Calcium, dissolved	M200.7 ICP	522		*	mg/L	0.2	1	01/25/07 20:51	gme
Magnesium, dissolved	M200.7 ICP	105		*	mg/L	0.2	1	01/25/07 20:51	gme
Potassium, dissolved	M200.7 ICP	7.3			mg/L	0.3	2	01/25/07 20:51	gme
Sodium, dissolved	M200.7 ICP	130		*	mg/L	0.3	2	01/25/07 20:51	gme
Wet Chemistry									
Parameter	EPA Method	Result	Gual	ΧO	Units	MDL	- 61	Date	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		128			mg/L	2	20	01/29/07 0:00	ct
CaCO3									
Carbonate as CaCO:	3		U		mg/L	2	20	01/29/07 0:00	ct
Hydroxide as CaCO	3		U		mg/L	2	20	01/29/07 0:00	ct
Total Alkalinity		128			mg/L	2	20	01/29/07 0:00	ct
Cation-Anion Balance	Calculation								
Cation-Anion Balance	•	-0.9			%			02/07/07 0:00	calc
Sum of Anions		41.3			meq/L	0.1	0.5	02/07/07 0:00	calc
Sum of Cations		40.6			meq/L	0.1	0.5	02/07/07 0:00	calc
Chloride	M325.2 - Colorimetric	84			mg/L	2	10	01/27/07 21:05	pjb
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/27/07 19:07	cas/cl
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.79			mg/L	0.02	0.1	01/25/07 21:28	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2940			mg/L	10	20	01/22/07 8:55	lcp
Sulfate	SM4500 SO4-D	1730			mg/L	10	50	01/20/07 13:15	seb
TDS (calculated)	Calculation	2660			mg/L	-10	50	02/07/07 0:00	calc
TDS (ratio -	Calculation	1.11						02/07/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

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Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-16

ACZ Sample ID:

L60758-04

Date Sampled:

01/16/07 10:25

Date Received:

01/18/07

Sample Matrix:

Ground Water

Field Data								
Parameter	EPA Method	Result		Units	Migra	POL	Dette	Artellysis
Conductivity (Field)	Field Measurement	1415		mS/cm			01/16/07 10:25	þd
pH (Field)	Field Measurement	7.2		units			01/16/07 10:25	bd
Temperature (Field)	Field Measurement	23.8		С			01/16/07 10:25	bd
Metals Analysis								
Parameter	EPA Method	Result	Ole all all all all all all all all all a	Units	MDL	Pel	Date	ATT
Calcium, dissolved	M200.7 ICP	513	*	mg/L	0.2	1	01/25/07 21:03	gme
Magnesium, dissolved	M200.7 ICP	126	*	mg/L	0.2	1	01/25/07 21:03	gme
Potassium, dissolved	M200.7 ICP	6.8		mg/L	0.3	2	01/25/07 21:03	gme
Sodium, dissolved	M200.7 ICP	112	*	mg/L	0.3	2	01/25/07 21:03	gme
Wet Chemistry								
Parameter	EPA Method	Result	Casal XC	LI TES	(D)			
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as		128		mg/L	2	20	01/29/07 0:00	ct
CaCO3					~	20	*	01
Carbonate as CaCO3	3		U	mg/L	2	20	01/29/07 0:00	ct [.]
Hydroxide as CaCO3	r e		U	mg/L	2	20	01/29/07 0:00	ct
Total Alkalinity		128		mg/L	2	20	01/29/07 0:00	ct
Cation-Anion Balance	Calculation							
Cation-Anion Balance		-2.0		%			02/07/07 0:00	calc
Sum of Anions		42.8		meq/L	0.1	0.5	02/07/07 0:00	calc
Sum of Cations		41.1		meq/L	0.1	0.5	02/07/07 0:00	calc
Chloride	M325.2 - Colorimetric	139		mg/L	3	20	01/27/07 21:06	pjb
Fluoride	SM4500F-C	0.3	В	mg/L	0.1	0.5	01/27/07 19:28	cas/cl
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.01		mg/L	0.04	0.2	01/25/07 21:51	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2970		mg/L	10	20	01/22/07 8:56	lcp
Sulfate	SM4500 SO4-D	1730		mg/L	10	50	01/20/07 13:15	seb
TDS (calculated)	Calculation	2700		mg/L	10	50	02/07/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.10					02/07/07 0:00	calc

Arizona license number: AZ0102

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2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-17

ACZ Sample ID:

L60758-05

Date Sampled:

01/16/07 10:10

Date Received:

01/18/07

Sample Matrix: Ground Water

Field Data									
Parameter	EPA Method	Result	Oual	10	Units	MDL	POL	Date	115 (15)
Conductivity (Field)	Field Measurement	1402			mS/cm			01/16/07 10:10	bd
pH (Field)	Field Measurement	6.8			units			01/16/07 10:10	bd
Temperature (Field)	Field Measurement	21.8			С			01/16/07 10:10	bd
Metals Analysis		•							
Parameter	EPA Method	Resilie	Qual	ΧD	Units	MEST	P O L	Rate	
Calcium, dissolved	M200.7 ICP	457		*	mg/L	0.2	1	01/25/07 21:07	gme
Magnesium, dissolved	M200.7 ICP	121		*	mg/L	0.2	1	01/25/07 21:07	gme
Potassium, dissolved	M200.7 ICP	7.1			mg/L	0.3	2	01/25/07 21:07	gme
Sodium, dissolved	M200.7 ICP	134		*	mg/L	0.3	2	01/25/07 21:07	gme
N (O)							_	01,20,0, 2,,0,	91110
Wet Chemistry Parameter	EPA Meinos								
		Result	Cital		Units	WELL		Deta	Anelysi
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		128			mg/L	2	20	01/29/07 0:00	ct
Carbonate as CaCO3	3		U		mg/L	2	20	01/29/07 0:00	o.t
Hydroxide as CaCO3			U		mg/L	2	20	01/29/07 0:00	ct
Total Alkalinity		128			mg/L	2	20	01/29/07 0:00	ct ct
Cation-Anion Balance	Calculation	120			mg/L	2	20	01/29/07 0.00	Cl
Cation-Anion Balance		-1.1			%			02/07/07 0:00	calc
Sum of Anions		39.8			meq/L	0.1	0.5	02/07/07 0:00	calc
Sum of Cations		38.9			meg/L	0.1	0.5	02/07/07 0:00	calc
Chloride	M325.2 - Colorimetric	131			mg/L	3	20	01/27/07 21:07	
Fluoride	SM4500F-C	0.3	В		mg/L	0.1	0.5	01/27/07 21:07	pjb cas/ct
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.21	D		mg/L	0.02	0.5	01/25/07 21:31	
Residue, Filterable	M160.1 - Gravimetric	2820			mg/L	10	20	01/22/07 8:57	pjb
(TDS) @180C		2020			mg/L	10	20	01/22/07 0.57	lcp
Sulfate	SM4500 SO4-D	1600			mg/L	10	50	01/20/07 13:15	seb
TDS (calculated)	Calculation	2530			mg/L	10	50	02/07/07 0:00	calc
TDS (ratio -	Calculation	1.11						02/07/07 0:00	calc
measured/calculated)									

Arizona license number: AZ0102

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Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

DUP011607A

ACZ Sample ID:

L60758-08

Date Sampled:

01/16/07 00:00

Date Received:

01/18/07

Sample Matrix: Ground Water

Metals Analysis							٠	
Parameter	EPA Method	Result O	iai XC	Units	MDL	POL	Prote (Amalysi
Calcium, dissolved	M200.7 ICP	513	*	mg/L	0.2	1	01/25/07 21:20	gme
Magnesium, dissolved	M200.7 ICP	116	*	mg/L	0.2	1	01/25/07 21:20	gme
Potassium, dissolved	M200.7 ICP	7.8	:	mg/L	0.3	2 -	01/25/07 21:20	gme
Sodium, dissolved	M200.7 ICP	157	*	mg/L	0.3	2	01/25/07 21:20	gme
Wet Chemistry							1.0	
Faremeter	EPA Method	Result D	ral XO.	Unitis	MDL	FOL	Date	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as CaCO3		125		mg/L	2	20	01/29/07 0:00	ct -
Carbonate as CaCO3	3		J	mg/L	2	20	01/29/07 0:00	ct
Hydroxide as CaCO3	3	ţ	J	rng/L	2	20	01/29/07 0:00	ct
Total Alkalinity		125		mall	2	20	01/29/07 0:00	ct
		120		mg/Ŀ	2	20	0 1129/01 0.00	

Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as CaCO3		125		mg/L	2	20	01/29/07 0:00	ct -
Carbonate as CaCO3	3		U	mg/L	2	20	01/29/07 0:00	ct
Hydroxide as CaCO3	3		U	rng/L	2	20	01/29/07 0:00	· ct
Total Alkalinity		125		mg/L	2	20	01/29/07 0:00	ct
Cation-Anion Balance	Calculation							
Cation-Anion Balance	1	-2.0		%			02/07/07 0:00	calc
Sum of Anions		44.0		meq/L	0.1	0.5	02/07/07 0:00	calc
Sum of Cations		42.3		meq/L	0.1	0.5	02/07/07 0:00	calc
Chloride	M325.2 - Colorimetric	124		mg/L	2	10	01/27/07 21:11	pjb
Fluoride	SM4500F-C	0.3	В	mg/L	0.1	0.5	01/27/07 19:55	cas/c1
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.40		mg/L	0.02	0.1	01/25/07 21:36	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	3070		mg/L	10	20	01/22/07 9:01	lcp
Sulfate	SM4500 SO4-D	1810		* mg/L	. 10	50	01/20/07 13:15	seb
TDS (calculated)	Calculation	2800		mg/L	10	50	02/07/07 0:00	calc
TDS (ratio -	Calculation	1.10					02/07/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

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Inorganic Relierence

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

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. Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QĆ	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest
	nes

0.04653111016	ypes 200		
AS:	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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 Type Explanations

Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure.

Control Samples

Verifies the accuracy of the method, including the prep procedure.

Duplicates

Verifies the precision of the instrument and/or method.

Spikes/Fortified Matrix

Determines sample matrix interferences, if any.

Standard

Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

В Analyte concentration detected at a value between MDL and PQL. Н

Analysis exceeded method hold time. pH is a field test with an immediate hold time.

U Analyte was analyzed for but not detected at the indicated MDL

100

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993. (2)
- EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples Supplement I, May 1994. (3)
- (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
- Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Cerrmonts

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (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.

ACZ Project ID: L60758

O.IOOXN

Project ID:	0.	J00XN									V41177000000001110V42	
Alkalinity as Ca	CO3		SM2320B	- Titration								
A97.10	igne.	Analyzed	Participal	8.6	Serrible	CONTRA	Units	Tie.	Lower	Upper	RPID	Limii Guni
WG219775												
WG219775LCSW2	LCSW	01/29/07 17:00	WC061230-1	820		820.3	mg/L	100	80	120		
WG219775LCSW5	LCSW	01/29/07 19:21	WC061230-1	820		826	mg/L	100.7	80	120		
L60758-06DUP	DUP	01/29/07 20:57			136	137.6	mg/L				1.2	20
L60797-05DUP	DUP	01/29/07 22:27			27	27.2	mg/L				0.7	20
WG219775LCSW8	LCSW	01/29/07 22:39	WC061230-1	820		831.1	mg/L	101.4	80	120		
Aluminum, diss	olved		M200.7 IC	P.P								
	Туре	Analyzad	Ter VI			FOREIGN	Units	Ret	LOSTE	Spacer		Constitution (Constitution)
WG219466												
WG219466ICV	ICV	01/25/07 19:20	11061230-1	2		1.995	mg/L	99.8	95	105		
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.09	0.09		
WG219466LFB	LFB	01/25/07 19:40	11070119-5	1		1.025	mg/L	102.5	85	115		
L60661-03AS	AS	01/25/07 19:48	11070119-5	1	1.66	2.713	mg/L	105.3	85	115		
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	1	1.66	2.764	mg/L	110.4	85	115	1.86	20
L60758-02AS	AS	01/25/07 20:43	11070119-5	1	U	1.072	mg/L	107.2	85	115		
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	.1	U	.973	mg/L	97.3	85	115	9.68	20
Antimony, disso	olved	.* . *	M200.8 IC	P-MS								
ACZ (D	Type	Arcalyzed	FENSON	0.0		Faster	U1115	Ren	Lection	Upper	717	Larri etc.
WG219405												
WG219405ICV	ICV	01/19/07 1:19	MS070108-2	.02		.02046	mg/L	102.3	90	110		
WG219405ICB	ICB	01/19/07 1:25				U	mg/L		-0.0012	0.0012		
WG219405LFB	LFB	01/19/07 1:31	MS061218-3	.00625		.00642	mg/L	102.7	85	115		
L60752-01AS	AS	01/19/07 1:43	MS061218-3	.00625	U	.00584	mg/L	93.4	70	130		
L60752-01ASD	ASD	01/19/07 1:49	MS061218-3	.00625	U	.00599	mg/L	95.8	70	130	2.54	20
L60758-07AS	AS	01/19/07 3:09	MS061218-3	.00625	υ	.00592	mg/L	94.7	70	130		
L60758-07ASD	ASD	01/19/07 3:15	MS061218-3	.00625	υ	.00593	mg/L	94.9	70 -	130	0.17	20
WG219511	,											
WG219511ICV	ICV	01/22/07 19:15	M\$070108-2	.02		.02016	mg/L	100.8	90	110		
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0012	0.0012		
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.00625		.00669	mg/L	107	85	115		
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.00625	U	.00627	mg/L	100.3	70	130		
L60742-05ASD	ASD	01/22/07 19:44	M\$061218-3	.00625	U	.00642	mg/L	102.7	70	130	2.36	20
Arsenic, dissolv	ed .		M200.8 IC	CP-MS								
Alexalie		Stratyzan	F1915143101.	0.0		Fedfre		Ret	1.00	1116	RP B	Intit David
WG219405												
WG219405ICV	ICV	01/19/07 1:19	MS070108-2	.05		.05149	mg/L	103	90	110		
WG219405ICB	ICB	01/19/07 1:25				U	mg/L		-0.0015	0.0015		
WG219405LFB	LFB	01/19/07 1:31	MS061218-3	.05		.05184	mg/L	103.7	85	115		
L60752-01AS	AS	01/19/07 1:43	MS061218-3	.05	.0057	.05945	mg/L	107.5	70	130		
L60752-01ASD	ASD	01/19/07 1:49	MS061218-3	.05	.0057	.05908	mg/L	106.8	70	130	0.62	20
L60758-07AS	AS	01/19/07 3:09	MS061218-3	.05	.0137	.06446	mg/L	101.5	70	130		
L60758-07ASD	ASD	01/19/07 3:15	MS061218-3	.05	.0137	.06466	mg/L	101.9	70	130	0.31	20
							-					

Phelps Dodge Sierrita

Project ID:

OJ00XN

Barium, dissolv	~ d		M200.7 IC							X 1866 km Solovis in m. 12-22	HIVELY EQUIPMENT		
ASZ ID	Type	Analyzed		GC			Units	Rec	Lower	Lippoer	P)PI		Duel
WG219466													
WG219466ICV	ICV	01/25/07 19:20	II061230-1	2		2.042	mg/L	102.1	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.009	0.009			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	.5		.4918	mg/L	98.4	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	.5	.037	.5487	mg/L	102.3	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	.5	.037	.5515	mg/L	102.9	85	115	0.51	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	.5	.051	.5478	mg/L	99.4	85	115			
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	.5	.051	.4785	mg/L	85.5	85	115	13.5	20	
Beryllium, disso	lved		M200.8 IC	P-MS									
A67241B	Турга	Analyzed	Persent	er	Sample	Found	dis	Rec	Constitution	Linner	THE.	Limi	Orm
WG219405													
WG219405ICV	ICV .	01/19/07 1:19	MS070108-2	.05		.04964	mg/L	99.3	90	110			
WG219405ICB	ICB	01/19/07 1:25				U	mg/L		-0.0003	0.0003			
WG219405LFB	LFB	01/19/07 1:31	MS061218-3	.05		.05048	mg/L	101	85	115			
L60752-01AS	AS	01/19/07 1:43	MS061218-3	.05	U	.04731	mg/L	94.6	70	130			
L60752-01ASD	ASD	01/19/07 1:49	MS061218-3	.05	U	.04655	mg/L	93.1	70	130	1.62	20	
L60758-07AS	AS	01/19/07 3:09	MS061218-3	.05	U .	.04097	mg/L	81.9	70	130			
L60758-07ASD	ASD	01/19/07 3:15	MS061218-3	.05	U	.03967	mg/L	79.3	70	130	3.22	20	
WG219445													
WG219445ICV	ICV	01/20/07 8:19	MS070108-2	.05		.04952	mg/L	99	90	110			
WG219445ICB	1CB	01/20/07 8:25				U	mg/L		-0.0003	0.0003			
WG219445LFB	LFB	01/20/07 8:31	MS061218-3	.05		.04908	mg/L	98.2	85	115			
L60752-01AS	AS	01/20/07 8:43	MS061218-3	.05	U	.04863	mg/L	97.3	70	130			
L60752-01ASD	ASD	01/20/07 8:49	MS061218-3	.05	U	.04755	mg/L	95.1	70	130	2.25	20	
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.04995	mg/L	99.9	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05106	mg/L	102.1	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05368	mg/L	107.4	70	130			
L60742-05ASD	ASD	01/22/07 19:44	M\$061218-3	.05	U	.05306	mg/L	106.1	70	130	1.16	20	

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Project ID:

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Cadmium, diss	olved	·	M200.8 I	CP-MS									THE TATION OF PROPERTY.
A (7) ID	Type	Arrály zerd	PONSON		Sample	E(stoje(€)	li e i e	T)	Lower	Lispen	TEE	Limit	Cara
WG219405													
WG219405ICV	ICV	01/19/07 1:19	MS070108-2	.05	4	.0506	mg/L	101.2	90	110			
WG219405ICB	ICB -	01/19/07 1:25				U	mg/L		-0.0003	0.0003			
WG219405LFB	LFB	01/19/07 1:31	MS061218-3	.05		.05073	mg/L	101.5	85	115			
L60752-01AS	AS	01/19/07 1:43	MS061218-3	.05	.0001	.04853	mg/L	96.9	70	130			
L60752-01ASD	ASD	01/19/07 1:49	MS061218-3	.05	.0001	.04801	mg/L	95.8	70	130	1.08	20	
L60758-07AS	AS	01/19/07 3:09	MS061218-3	.05	U	.04694	mg/L	93.9	70	130			
L60758-07ASD	ASD	01/19/07 3:15	MS061218-3	.05	U	.04658	mg/L	93.2	70	130	0.77	20	
WG219511	-												
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.05025	mg/L	100.5	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05246	mg/L	104.9	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05321	mg/L	106.4	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05342	mg/L	106.8	70 -	- 130	0.39	20	
Calcium, dissol	ved		M200.7 I	CP									
A\$72/18	Type	Analyzed			Samole	Found	Units		Lower	Upper	RPD	Limit	Carri
WG219466		•											
WG219466ICV	ICV	01/25/07 19:20	11061230-1	100		98.05	mg/L	98.1	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.6	0.6			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	67.95918		67.01	mg/L	98.6	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	67.95918	267	328.55	mg/L	90.6	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	67.95918	267	331.54	mg/L	95	85	115	0.91	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	67.95918	524	569.09	. mg/L	66.3	85	115			M3 ,
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	67.95918 	524	518.5	mg/L	-8.1	85	115	9.3	20	M3
Chloride			M325.2 -	Colorimetri	ic								
ACZ ID	Type		PONSON	ere	Sample	Found	Unite	Flac	Lesse	DIVER	RPE	1111	Charl
WG219739													
WG219739ICV	ICV	01/27/07 20:58	WI061113-3	55		56.9	mg/L	103.5	90	110			
WG219739ICB	ICB	01/27/07 20:59				U	mg/L		-3	3			
WG219739LFB1	LFB	01/27/07 21:00	WI061127-1	30		30.4	mg/L	101.3	90	110			
L60758-02DUP	DUP	01/27/07 21:04			122	124.9	mg/L				2.3	20	
WG219739LFB2	LFB	01/27/07 21:27	WI061127-1	30		.31.4	mg/L	104.7	90	110			
L60758-01AS	AS	01/27/07 21:41	WI061127-1	150	123	277.9	mg/L	103.3	90	110		v	
Chromium, diss			M200.7 I	CP .									
A C.Z. (D	Type	Arrab zad	PENSON	ÜC	Sample	Found	Units	Res	Lower	Зрува	NPB	L THÝ	Direl
WG219466													
WG219466ICV	ICV	01/25/07 19:20	11061230-1	2		1.952	mg/L	97.6	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.03	0.03			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	.5 .		.477	mg/L	95.4	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	.5	U	.494	mg/L	98.8	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	.5	U	.497	mg/L	99.4	85	115	0.61	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	.5	U .	.472	mg/L	94.4	85	. 115			
L60758-02ASD	ASD	01/25/07 20:47	II070119-5	.5		.426	mg/L	85.2	85	115	10.24	20	

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ACZ	Project	ID:	L60758

Cobalt, dissolve	ed		M200.7 I	CP.									
ACZ (D	Typic	Analyzas	PRINSPI	Q)		Fostind	l i i i s	Red		Gipper	RIFE	i pair	Chiel
WG219466													
WG219466ICV	ICV	01/25/07 19:20	II061230-1	2		1.929	mg/L	96.5	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.03	0.03			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	.5		.483	mg/L	96.6	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	.5	.07	.549	mg/L	95.8	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	.5	.07	.553	mg/L	96.6	85	115	0.73	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	.5	U	.452	mg/L	90.4	85 .	115			
L60758-02ASD	ASD	01/25/07 20:47	II070119-5	.5	U	.408	mg/L	81.6	85	115	10.23	20	MA
Conductivity @	25C		M120.1 -	Meter									
ACZ ID	Type	Analyzed		[6]0	Sample	Four	Units	Rec	Louise	Upper	RPD	Limit	Qual
WG219775													
WG219775PBW1	PBW	01/29/07 16:47				3	umhos/cn		-10	10			
WG219775LCSW1	LCSW	01/29/07 16:49	PCN25346	1408.8		1468	umhos/cn	104.2	80	120			
WG219775PBW2	PBW	01/29/07 19:09	-			6.4	umhos/cn		-10	10			
WG219775LCSW4	LCSW	01/29/07 19:10	PCN25346	1408.8		1448	umhos/cn	102.8	80	120			
L60758-06DUP	DUP	01/29/07 20:57			3240	3230	umhos/cn				0.3	20	
L60797-05DUP	DUP	01/29/07 22:27			87	86.5	umhos/cn				0.6	20	
WG219775LCSW7	LCSW	01/29/07 22:28	PCN25346	1408.8		1430	umhos/cn	101.5	80	120			
Copper, dissolv	ed		M200.7 I	CP					***************************************				
ACZ 10	Туре	Analyzes	PICKESON	6)16	2.0171.0112	Fermi	delbs	Rec	Lower	Unper	RPD	Limit	Ormal
WG219792													
WG219792ICV	ICV	01/29/07 21:10	11070116-1	2		1.928	mg/L	96.4	95	105			
WG219792ICB	ICB	01/29/07 21:14				U	mg/L		-0.03	0.03			
WG219792LFB	LFB	01/29/07 21:26	11070119-5	.5		.455	mg/L	91	85	115			
L60755-03AS	AS	01/29/07 21:33	11070119-5	.5	U	.437	mg/L	87.4	85	115			
L60755-03ASD	ASD	01/29/07 21:36	11070119-5	.5	U	.439	mg/L	87.8	85	115	0.46	20	

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MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219550 MG219488LRB LRB	med M2 RA
MG219550ICV ICV 01/23/07 14:03 M070111-3 .3 .2873 mg/L 95.8 90 110 MG219550ICB ICB 01/23/07 14:04 U mg/L -0.015 0.015 0.015 MG219488LRB LRB 01/23/07 14:05 U mg/L -0.015 0.015 MG219488LRB LFB 01/23/07 14:05 W070111-7 .2 .1811 mg/L 90.6 90 110 MG219488LFB LFB 01/23/07 14:21 W070111-7 .2 .007 .1845 mg/L 88.8 90 110 MG219685 MG219685ICB ICB 01/26/07 10:36 M070126-3 .3 .29 mg/L 96.7 90 110 MG219671LRB LFB 01/26/07 10:38 W070111-7 .2 .1926 mg/L -0.015 0.015 MG21967LRB LFB 01/26/07 10:38 W070111-7 .2 .1926 mg/L 96.3 90 110 MG21967-03DUP DUP 01/26/07 10:38 W070111-7 .2 .1926 mg/L 96.3 90 110 MG21967-03DUP DUP 01/26/07 10:34 W070111-7 .2 .1926 mg/L 96.3 90 110 MG21967-03DUP DUP 01/26/07 10:35 W070111-7 .2 .036 .2238 mg/L 94.9 90 110 MG219655LRB LRB 01/26/07 11:03 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219655LRB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219655LFB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219655LFB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG21967-04DIP DUP 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219655LFB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219665LFB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219665LFB MG219655LFB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219665LFB MG219655LFB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219665LFB MG219655LFB LFB 01/26/07 11:04 W070111-7 .2 .1898 mg/L 94.9 90 110 MG219665LFB MG219655LFB LFB 01/26/07 11:04 W070111-7 .2 .0166 .0158 mg/L 94.9 90 110 110 MG219655LFB MG219655LFB MG219655LFB MG219655LFB MG219655LFB	
WG219488LRB	
WG219488LRB LRB 01/23/07 14:05 U mg/L -0.015 0.015 WG219488LFB LFB 01/23/07 14:06 WI070111-7 .2 .1811 mg/L 90.6 90 .110 L60729-03LFM LFM 01/23/07 14:21 WI070111-7 .2 .007 .1845 mg/L 88.8 90 .110 L60729-02DUP DUP 01/23/07 14:33 U U U mg/L 88.8 90 .110 WG219685 USB 01/26/07 10:36 WI070126-3 .3 .29 mg/L 96.7 90 .110 WG219685ICW ICV 01/26/07 10:36 WI070126-3 .3 .29 mg/L 96.7 90 .110 WG219685ICB ICB 01/26/07 10:38 WI070111-7 .2 .1926 mg/L 96.3 90 .110 WG219617LFB LFB 01/26/07 10:40 WI070111-7 .2 .028 .0253 mg/L 93.9 90 .110 .101	
WG219488LFB LFB 01/23/07 14:06 WI070111-7 .2 .1811 mg/L 90.6 90 .110 L60729-03LFM LFM 01/23/07 14:21 WI070111-7 .2 .007 .1845 mg/L 88.8 90 .110 L60729-02DUP DUP 01/23/07 14:33 U U U mg/L 88.8 90 .110 WG219685 U DUP 01/23/07 10:36 WI070126-3 .3 .29 mg/L 96.7 90 .110 WG219685ICB ICB 01/26/07 10:36 WI070126-3 .3 .29 mg/L 96.7 90 .110 WG219685ICB ICB 01/26/07 10:36 WI07011-7 .2 .1926 mg/L -0.015 0.015 WG219617LFB LFB 01/26/07 10:38 WI070111-7 .2 .1926 mg/L 96.3 90 .110 .1 .2 L60758-03DUP DUP 01/26/07 10:42 WI070111-7 .2 .036 .2238 <	
L60729-03LFM	
L60729-02DUP DUP 01/23/07 14:33	
WG219685 WG219685ICV ICV 01/26/07 10:36 WI070126-3 3 2.9 mg/L 96.7 90 110 WG219685ICB ICB 01/26/07 10:37 Umg/L -0.015 0.015 WG219617LRB LRB 01/26/07 10:38 Umg/L -0.015 0.015 WG219617LFB LFB 01/26/07 10:38 WI070111-7 2 1926 mg/L 96.3 90 110 L60758-03DUP DUP 01/26/07 10:40 0.028 .0253 mg/L 93.9 90 110 L60758-04LFM LFM 01/26/07 10:42 WI070111-7 .2 .036 .2238 mg/L 93.9 90 110 L60762-04DUP DUP 01/26/07 10:52 WI070111-7 .2 .036 .2238 mg/L 93.9 90 110 WG219655LRB LRB 01/26/07 11:04 WI070111-7 .2 .1898 mg/L 94.9 90 110 L60773-01DUP DUP 01/26/07 11:0	RA
WG219685ICV ICV 01/26/07 10:36 WI070126-3 .3 .29 mg/L 96.7 90 110 WG219685ICB ICB 01/26/07 10:37 Umg/L -0.015 0.015 WG219617LRB LRB 01/26/07 10:38 Umg/L Umg/L -0.015 0.015 WG219617LFB LFB 01/26/07 10:38 WI070111-7 .2 1926 mg/L 96.3 90 110 L60758-03DUP DUP 01/26/07 10:40 0.028 .0253 mg/L 93.9 90 110 L60758-04LFM LFM 01/26/07 10:42 WI070111-7 .2 .036 .2238 mg/L 93.9 90 110 L60762-04DUP DUP 01/26/07 10:52 0.066 Umg/L -0.015 0.015 WG219655LRB LRB 01/26/07 11:04 WI070111-7 .2 1898 mg/L 94.9 90 110 L60773-01DUP DUP 01/26/07 11:04 WI070111-7 .2 1898 mg/L 94.9 <td></td>	
WG219685ICB ICB 01/26/07 10:37 U mg/L -0.015 0.015 WG219617LRB LRB 01/26/07 10:38 WI070111-7 .2 1926 mg/L 96.3 90 110 WG219617LFB LFB 01/26/07 10:38 WI070111-7 .2 1926 mg/L 96.3 90 110 L60758-03DUP DUP 01/26/07 10:40 0.028 .0253 mg/L 93.9 90 110 20 L60758-04LFM LFM 01/26/07 10:52 WI070111-7 .2 .036 .2238 mg/L 93.9 90 110 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	
WG219617LRB LRB 01/26/07 10:38 WI070111-7 .2 .1926 mg/L 96.3 90 110 .2 L60758-03DUP DUP 01/26/07 10:40 .028 .0253 mg/L 93.9 90 110 20 L60758-04LFM LFM 01/26/07 10:42 WI070111-7 .2 .036 .2238 mg/L 93.9 90 .110 .00 20 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00	
WG219617LFB LFB 01/26/07 10:38 WI070111-7 .2 .1926 mg/L 96.3 90 110 L60758-03DUP DUP 01/26/07 10:40 .028 .0253 mg/L .93.9 90 110 20 L60758-04LFM LFM 01/26/07 10:42 WI070111-7 .2 .036 .2238 mg/L 93.9 90 110 L60762-04DUP DUP 01/26/07 10:52 .006 U mg/L -0.015 0.015 WG219655LRB LRB 01/26/07 11:04 WI070111-7 .2 .1898 mg/L 94.9 90 110 L60773-01DUP DUP 01/26/07 11:06 .016 .0158 mg/L 90 110 L60773-02LFM LFM 01/26/07 11:09 WI070111-7 .2 .063 .2702 mg/L 10.3.6 90 110	
L60758-03DUP DUP 01/26/07 10:40 .028 .0253 mg/L .028 .021 .028 .0253 mg/L .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .028 .029 .029 .029 .029 .028 .028 .028 .028 .028 .028 .028 .028 .028 .0	
L60758-04LFM LFM 01/26/07 10:42 WI070111-7 .2 .036 .2238 mg/L 93.9 90 .110 .200 .20 L60762-04DUP DUP 01/26/07 10:52 .006 U mg/L -0.015 200 .20 WG219655LRB LRB 01/26/07 11:04 WI070111-7 .2 .1898 mg/L .94.9 .90 .110 L60773-01DUP DUP 01/26/07 11:06 .016 .0158 mg/L .90 .110 L60773-02LFM LFM 01/26/07 11:09 WI070111-7 .2 .063 .2702 mg/L .103.6 .90 .110	
L60762-04DUP DUP 01/26/07 10:52 .006 U mg/L 200 20 WG219655LRB LRB 01/26/07 11:03 U mg/L -0.015 0.015 WG219655LFB LFB 01/26/07 11:04 WI070111-7 .2 .1898 mg/L 94.9 90 110 L60773-01DUP DUP 01/26/07 11:06 .016 .0158 mg/L .03.6 90 110 L60773-02LFM LFM 01/26/07 11:09 WI070111-7 .2 .063 .2702 mg/L 103.6 90 110	RA
WG219655LRB LRB 01/26/07 11:03 U mg/L -0.015 0.015 WG219655LFB LFB 01/26/07 11:04 WI070111-7 .2 .1898 mg/L 94.9 90 110 L60773-01DUP DUP 01/26/07 11:06 .016 .0158 mg/L .03.6 90 110 L60773-02LFM LFM 01/26/07 11:09 WI070111-7 .2 .063 .2702 mg/L 103.6 90 110	
WG219655LFB LFB 01/26/07 11:04 WI070111-7 .2 .1898 mg/L 94.9 90 110 L60773-01DUP DUP 01/26/07 11:06 .016 .0158 mg/L 103.6 90 110 L60773-02LFM LFM 01/26/07 11:09 WI070111-7 .2 .063 .2702 mg/L 103.6 90 110	RA
WG219655LFB LFB 01/26/07 11:04 WI070111-7 .2 .1898 mg/L 94.9 90 110 L60773-01DUP DUP 01/26/07 11:06 .016 .0158 mg/L 1.3 20 L60773-02LFM LFM 01/26/07 11:09 WI070111-7 .2 .063 .2702 mg/L 103.6 90 110	
L60773-02LFM LFM 01/26/07 11:09 WI070111-7 .2 .063 .2702 mg/L 103.6 90 110	
	RA
L60762-05LFM LFM 01/26/07 11:14 WI070111-7 .2 .014 .2061 mg/L 96.1 90 110	
Fluoride SM4500F-C	
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit I	
WG219732	
WG219732ICV ICV 01/27/07 17:44 WC070126-1 1.996 2.07 mg/L 103.7 95 105	
WG219732ICB ICB 01/27/07 17:50 U mg/L -0.3 0.3	
WG219732LFB1 LFB 01/27/07 17:57 WC061021-1 4.99902 5.15 mg/L 103 90 110	
L60758-03AS AS 01/27/07 19:14 WC061021-1 4.99902 .3 5.44 mg/L 102.8 85 115	
L60758-03DUP DUP 01/27/07 19:21 .3 .34 mg/L 12.5 20	RA
L60761-01AS AS 01/27/07 20:35 WC061021-1 4.99902 1.3 6.24 mg/L 98.8 85 115	
L60761-01DUP DUP 01/27/07 20:42 1.3 1.36 mg/L 4.5 20	
Iron, dissolved M200.7 ICP	
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit I	ual
WG219466	
WG219466ICV ICV 01/25/07 19:20 II061230-1 2 1.971 mg/L 98.6 95 105	
WG219466ICB ICB 01/25/07 19:24 U mg/L -0.06 0.06	
WG219466LFB LFB 01/25/07 19:40 II070119-5 1 1.008 mg/L 100.8 85 115	
L60758-02AS AS 01/25/07 20:43 II070119-5 1 .02 .996 mg/L 97.6 85 115	
L60758-02ASD ASD 01/25/07 20:47 II070119-5 1 .02 .891 mg/L 87.1 85 11.13 20	

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- Marie Construction and Association and Assoc	TOTAL WATER WATER					enterior de la company			HOUSE CHANGE CONTRACTOR		CONTRACTOR OF THE PARTY OF THE	ansewers	
Lead, dissolved	d		M200.8 I	CP-MS									
ACZ ID	Type	Analyzed	PRINCIPAL	ØС	Same	Found	Units	Rec	Lower	Upper	T P E	Limit	Cural
WG219405													
WG219405ICV	ICV	01/19/07 1:19	MS070108-2	.05		.05419	mg/L	108.4	90	110			
WG219405ICB	ICB	01/19/07 1:25				U	mg/L		-0.0003	0.0003			
WG219405LFB	LFB	01/19/07 1:31	MS061218-3	.05		.05184	mg/L	103.7	85	115			
L60752-01AS	AS	01/19/07 1:43	MS061218-3	.05	,0001	.05277	mg/L	105.3	70	130			
L60752-01ASD	ASD	01/19/07 1:49	MS061218-3	.05	.0001	.05022	mg/L	100.2	70	130	4.95	20	
L60758-07AS	AS	01/19/07 3:09	MS061218-3	.05	.0003	.05299	mg/L	105.4	70	130			
L60758-07ASD	ASD	01/19/07 3:15	MS061218-3	.05	.0003	.05249	mg/L	104.4	70	130	0.95	20	
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.05057	mg/L	101.1	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05043	mg/L	100.9	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05035	mg/L	100.7	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	. U	.04997	mg/L	99.9	70	130	0.76	20	
Magnesium, dis	ssolved		M200.7 I	CP					***************************************				
A(07./18	Ŋ,	Analyzed	FONESCH	GC	Sample	Found	Units	Rec	1.0000	Upper	7.710	Linit	Orași
WG219466												***************************************	
WG219466ICV	ICV	01/25/07 19:20	11061230-1	100		97.2	mg/L	97.2	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.6	0.6			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	54.98614		54.56	mg/L	99.2	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	54.98614	81	139.41	mg/L	106.2	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	54.98614	81	141.76	mg/L	110.5	85	115	1.67	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	54.98614	118	172.86	mg/L	99.8	85	115			
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	54.98614	118	154.81	mg/L	66.9	85	115	11.02	20	MA
Manganese, dis	solved		M200.7 I	CP:						***************************************	***************************************		
ACZ ID	Type	Analyzed	PCN/SICA	O.C.	100	Found	Limite	Rec	Lower	Unper	FIFE		Dist
WG219466													
WG219466ICV	ICV	01/25/07 19:20	11061230-1	2		1.921	mg/L	96.1	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.015	0.015			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	.5		.4867	mg/L	97.3	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	.5	2.27	2.7056	mg/L	87.1	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	.5	2.27	2.7197	mg/L	89.9	85	115	0.52	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	.5	U	.4769	mg/L	95.4	85	115			
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	.5	U	4304	mg/L	86.1	85	115	10.25	20	

Phelps Dodge Sierrita

Project ID:

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Mercury, dissol	ived		M245.1 (CVAA			-						
	12.6	Analyzed	PRAME		Carrelle	Felivid	linits	Rec	LOHE	Upper	FFB	Limit	
WG219540													
WG219540ICV	ICV	01/24/07 17:00	11070115-2	.005		.00494	mg/L	98.8	95	105			
WG219540ICB	ICB	01/24/07 17:03				U	mg/L		-0.0002	0.0002			
WG219538													
WG219538LRB	LRB	01/24/07 18:13	* * * * * * * * * * * * * * * * * * *			U	mg/L		-0.00044	0.00044			
WG219538LFB	LFB	01/24/07 18:15	11070104-3	.002		.00173	mg/L	86.5	85	115			
L60758-05LFM	LFM	01/24/07 18:19	11070104-3	.002	U	.00183	mg/L	91.5	85	115			
L60758-05LFMD	LFMD	01/24/07 18:22	11070104-3	.002	U	.00184	mg/L	92	85	115	0.54	20	
WG219537													
WG219537ICV	ICV	01/25/07 15:01	11070115-2	.005		.00508	mg/L	101.6	95	105			
WG219537ICB	ICB	01/25/07 15:04				U	mg/L		-0.0002	0.0002			
WG219537LRB	LRB	01/25/07 15:06				U	mg/L		-0.00044	0.00044			
WG219537LFB	LFB	01/25/07 15:08	11070104-3	.002		.00194	mg/L	97	85	115			
L60734-11LFM	LFM	01/25/07 15:43	11070104-3	.002	U	.00177	mg/L	88.5	85	115			
L60734-11LFMD	LFMD	01/25/07 15:45	11070104-3	.002	U	.00176	mg/L	88	85	115	0.57	20	
Molybdenum, c	lissolve	d	M200.7	CP .				:					
_(80% (B)		1770		SIC.		Fall	Units	70.00	Lever	9000	RPD		Qual
WG219466													
WG219466ICV	ICV	01/25/07 19:20	11061230-1	2		2.001	mg/L	100.1	95	105			
WG219466ICB	ICB.	01/25/07 19:24				U	mg/L		-0.03	0.03			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	.5	•	.48	mg/L	96	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	.5	U	.517	mg/L	103.4	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	.5	U	.522	mg/L	104.4	85	115	0.96	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	.5	.04	.527	mg/L	97.4	85	115			
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	.5	.04	.485	mg/L	. 89	85	115	8.3	20	
Nickel, dissolve	ed		M200.7	ICP			· · · · · · · · · · · · · · · · · ·						**************************************
ACZED	ype	Analyzed	PERMIT	010	111111111111111111111111111111111111111	F (1813)		T C C	Lover	. Ipper		Limit	Carol
WG219466			*										
WG219466ICV	ICV	01/25/07 19:20	11061230-1	2		1.923	mg/L	96.2	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.03	0.03			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	.5	-	.479	mg/L	95.8	85	115			*
L60661-03AS	AS	01/25/07 19:48	11070119-5	.5	.05	.526	mg/L	95.2	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	.5	.05	.527	mg/L	95.4	85	115	0.19	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	.5	U	.462	mg/L	92.4	85	115			
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	5	U	.421	mg/L	84.2	85	115	9.29	20	MA

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ	Project ID	: L60758
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Attach to the transfer								in the second section is the second second					
Nitrate/Nitrite a				- H2SO4 pr	***************************************				(////////ptess//o		Walahia Karana		
ACZ ID	Type	Arraliva	PCAUSCA		Sample	Found	Units	Rec	Lower	Upper	RPB	Limit	Gral
WG219671													
WG219671ICV	ICV	01/25/07 19:28	WI061207-1	2.416		2.307	mg/L	95.5	90	110			
WG219671ICB	ICB	01/25/07 19:29				U	mg/L		-0.06	0.06			
WG219674													
WG219674ICV	ICV	01/25/07 21:07	WI061207-1	2.416		2.305	mg/L	95.4	90	110			
WG219674ICB	ICB	01/25/07 21:08				U	mg/L		-0.06	0.06			
WG219674LFB	LFB	01/25/07 21:09	WI060906-4	2		1.921	mg/L	96.1	90	110			
L60758-05DUP	DUP	01/25/07 21:33			2.21	2.207	mg/L				0.1	20	
L60726-01AS	AS	01/25/07 21:46	WI060906-4	10	5.3	15.85	mg/L	105.5	90	110	0.1	2.0	
L60726-04DUP	DUP	01/25/07 21:49			17.1	17.31	mg/L	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, 10	1,2	20	
L60758-04AS	AS	01/25/07 21:52	WI060906-4	4	2.01	6.216	mg/L	105.2	90	110		20	
pH (lab)			M150.1	- Electromet	ric								
AG7, ID	Type	Analyzed	PONSON	o lo	Sample	Fronte	Units	Figs	Lower	Linner	2.23	a triis d	Oyes
WG219775													-
WG219775LCSW3	LCSW	01/29/07 17:03	PCN25442	6		6.00		400.5	00	440			
WG219775LCSW6	LCSW	01/29/07 17:03	PCN25442 PCN25442	. 6		6.03	units	100.5	90.	110			
L60758-06DUP	DUP		FGN25442	0	7.0	6.05	units	100.8	90	110	,		
L60797-05DUP	DUP	01/29/07 20:57 01/29/07 22:27			7.9	7.97	units				0.9	20	
WG219775LCSW9	LCSW	01/29/07 22:27	PCN25442	. 6	7.8	7.84 6.03	units units	100.5	90	110	0.5	20	
	····	0 1120/07 22.10		·			umo			110			
Potassium, diss	****		M200.7	ICP		S2200000000000000000000000000000000000							
A GPZ (TB)	Type	Anniyaad	PRINCIP	Dic	Samuel	Found	Units	Rec	Lover	Upper	RPI	Limit	Dural
WG219466													
WG219466ICV	ICV	01/25/07 19:20	11061230-1	20		20	mg/L	100	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.9	0.9			
WG219466LFB	LFB:	01/25/07 19:40	11070119-5	99.51014		100.23	mg/L	100.7	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	99.51014	10.7	120.22	mg/L	110.1	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	99.51014	10.7	124.48	mg/L	114.3	85	115	3.48	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	99.51014	8.1	116.74	mg/L	109.2	85	115			
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	99.51014	8.1	101.95	mg/L	94.3	85	115	13.53	20	
Residue, Filtera	ble (TD:	S) @180C	M160.1 -	Gravimetri	0		•						
ACZ (D	Tylera	Amalyzed	FEMAL	OC	Samole	Found		i er	Lower	Upper	990	Limit	Qual
WG219478													
WG219478PBW	PBW	01/22/07 8:50				16	mg/L		-20	20			
WG219478LCSW	LCSW	01/22/07 8:51	PCN26278	261		300	mg/L	114.9	80	120			
L60759-02DUP	DUP	01/22/07 9:05	• "		840	838	mg/L				0.2	20	
	·····						<u> </u>						

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Phelps Dodge Sierrita

Project ID:

ACZ	Project I	D:	L60758
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Selenium, disso	olved		M200.8 I	CP-MS	7,								
ASZ IB	Type	echyred		O.C.	1111	70000	treits.	Fig.		0.002	F(F)D	Line	Contail
WG219405													
WG219405ICV	ICV	01/19/07 1:19	MS070108-2	.05		.05451	mg/L	109	90	110			
WG219405ICB	ICB	01/19/07 1:25				U	mg/L		-0.0003	0.0003			
WG219405LFB	LFB	01/19/07 1:31	MS061218-3	.05		.05188	mg/L	103.8	85	115			
L60752-01AS	AS	01/19/07 1:43	MS061218-3	.05	.0227	.07745	mg/L	109.5	70	130			
L60752-01ASD	ASD	01/19/07 1:49	MS061218-3	.05	.0227	.07582	mg/L	106.2	70	130	2.13	20	
L60758-07AS	AS	01/19/07 3:09	MS061218-3	.05	U	.05139	mg/L	102.8	70	130			
L60758-07ASD	ASD	01/19/07 3:15	MS061218-3	.05	U	.05148	mg/L	103	70	130	0.17	20	
WG219445													
WG219445ICV	ICV	01/20/07 8:19	MS070108-2	.05		.05368	mg/L	107.4	90	110			
WG219445ICB	ICB	01/20/07 8:25				.00019	mg/L		-0.0003	0.0003			
WG219445LFB	LFB	01/20/07 8:31	MS061218-3	.05		.05078	mg/L	101.6	85	115			
L60752-01AS	AS	01/20/07 8:43	MS061218-3	.05	.0225	.07637	mg/L	107.7	70	130			
L60752-01ASD	ASD	01/20/07 8:49	MS061218-3	.05	.0225	.07446	mg/L	103.9	70	130	2.53	20	
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.05		.05349	mg/L	107	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.05307	mg/L	106.1	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	U	.05338	mg/L	106.8	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05402	mg/L	108	70	130	1.19	20	
Sodium, dissol	ved		M200.7 I	CP									
A157.11	1970	Arelysical		OC		Found	Units	Rec	Lower	Julian	1811	-init	
WG219466													
WG219466ICV	ICV	01/25/07 19:20	II061230-1	100		98.98	mg/L	99	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.9	0.9			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	99.90786		99.87	mg/L	100	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	99.90786	78.4	186.24	mg/L	107.9	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	99.90786	78.4	191.21	mg/L	112.9	85	115	2.63	20	
L60758-02AS	AS	01/25/07 20:43	11070119-5	99.90786	161	261.58	mg/L	100.7	85	115			
L60758-02ASD	ASD	01/25/07 20:47	11070119-5	99.90786	161	229.04	mg/L	68.1	85	115	13.26	20	M
Sulfate			SM4500	SO4-D	,								
	lype	Avalyzed			Selling.		Livian			. Pare et	71775		
WG219464						,							
WG219464LCSW	LCSW	01/20/07 13:15	WC061207-2	100		99	mg/L	99	80	120			
WG219464PBW	PBW	01/20/07 13:15			,	U	mg/L		-30	30			
L60758-04DUP	DUP	01/20/07 13:15			1730	1748	mg/L				1	20	

Phelps Dodge Sierrita

Project ID:

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Thallium, dissol	ved		M200.8 IC	P-MS									
A 6 7 TD	Type	Analyzed	PCNISCN	60	Sample	Found	Units	Rac	Lower	Upper	FIFT	Limit	Oual
WG219405													
WG219405ICV	ICV	01/19/07 1:19	MS070108-2	.056		.05752	mg/L	102.7	90	110			
WG219405ICB	ICB	01/19/07 1:25				U	mg/L		-0.0003	0.0003			
WG219405LFB	LFB	01/19/07 1:31	MS061218-3	.05		.05169	mg/L	103.4	85	115			
L60752-01AS	AS	01/19/07 1:43	MS061218-3	.05	U	.05347	mg/L	106.9	70	130			
L60752-01ASD	ASD	01/19/07 1:49	MS061218-3	.05	U	.05087	mg/L	101.7	70	130	4.98	20	
L60758-07AS	AS	01/19/07 3:09	MS061218-3	.05	U	.05348	mg/L	107	70	130			
L60758-07ASD	ASD	01/19/07 3:15	MS061218-3	.05	U	.05302	mg/L	106	70	130	0.86	20	
WG219511													
WG219511ICV	ICV	01/22/07 19:15	MS070108-2	.056	* .	.05703	mg/L	101.8	90	110			
WG219511ICB	ICB	01/22/07 19:21				U	mg/L		-0.0003	0.0003			
WG219511LFB	LFB	01/22/07 19:27	MS061218-3	.05		.054	mg/L	108	85	115			
L60742-05AS	AS	01/22/07 19:38	MS061218-3	.05	· U	.05374	mg/L	107.5	70	130			
L60742-05ASD	ASD	01/22/07 19:44	MS061218-3	.05	U	.05391	mg/L	107.8	70	130	0.32	20	
Zinc, dissolved			M200.7 IC	Ρ .						***************************************			1-10-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
ACZ ID	Type	Anniyezod	PCN/SCN	eje		Petric	Units		London	Upper			eng)
WG219466													
WG219466ICV	ICV	01/25/07 19:20	11061230-1	2		1.945	mg/L	97.3	95	105			
WG219466ICB	ICB	01/25/07 19:24				U	mg/L		-0.03	0.03			
WG219466LFB	LFB	01/25/07 19:40	11070119-5	.5		.492	mg/L	98.4	85	115			
L60661-03AS	AS	01/25/07 19:48	11070119-5	.5	.65	1.148	mg/L	99.6	85	115			
L60661-03ASD	ASD	01/25/07 19:52	11070119-5	.5	.65	1.163	mg/L	102.6	85	115	1.3	20	
L60758-02AS	AS	01/25/07 20:43	II070119-5	.5	U	.507	mg/L	101.4	85	115			
L60758-02ASD	ASD	01/25/07 20:47	II070119-5	.5	U	.451	mg/L	90.2	85	115	11.69	20	

Inorganic Extended **Qualifier Report**

Phelps Dodge Sierrita

DESCRIPTION OF THE PERSON OF T					
ACT		PARAMETER	METHOD	CHAL.	DESCRIPTION
L60758-01	WG219466	Iron, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219732	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60758-02	WG219466	Calcium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Cobalt, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Nickel, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
. ,			M335.4 - Colorimetric w/ distillation	.RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL)
	WG219732	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60758-03	WG219466	Calcium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Cobalt, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Nickel, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219732	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

ACZ D	110 121 111	F73.50 4.15; 200 5 200	METHOR		DESCRIPTION
L60758-04	WG219466	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Cobalt, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	•	Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Nickel, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA:	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60758-05	WG219466	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Cobalt, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Nickel, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60758-06	WG219466	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Cobalt, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Nickel, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

ACT ID	WORKMEN	PARAMETER	METHOD		DESCRIPTION
L60758-07	WG219466	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Cobalt, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Nickel, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219405	Selenium, dissolved	M200.8 ICP-MS	VC	CCV recovery was above the acceptance limits. Target analyte was not detected in the sample [< MDL].
	WG219466	Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60758-08	WG219466	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Cobalt, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Magnesium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Nickel, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
		Sodium, dissolved	M200.7 ICP	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG219685	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219464	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60758

No certification qualifiers associated with this analysis

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60758

Date Received:

1/18/2007

Received By:

Date Printed:

1/18/2007

Receipt Verification

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		Х
X		
		X
X		
Х		
X		
Χ		
X		
X		
		Х
	Х	
Χ		
		Х

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Continues

Cooler Id		Temp (°C)	Rad (µR/hr)
270		3.0	17
· · · · · · · · · · · · · · · · · · ·	+		

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

Sample Receipt

Phelps Dodge Sierrita OJ00XN

ACZ Project ID:

L60758

Date Received:

1/18/2007

Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG<2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60758-01	IW-13	-	Y	THE RESERVE OF STREET	Υ		TOO SOURCE STREET		**************************************		-	
L60758-02	IW-14		Y		Y							
L60758-03	IW-15		Y		Υ							
L60758-04	IW-16		Y		Y						1	
L60758-05	IW-17		Y		Υ							
L60758-06	MH-15W		Y		Y							
L60758-07	MH-27		Y		Y						 	
	DUP011607A		Υ		Υ	-						

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
Т	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By:	
Sample IDS Keylewed by.	

ANALYTICAL REQUEST SHEET
Chain of Custody
PO# - OJ00XN

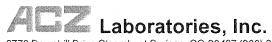
P.O. Box 527, Green Valley, AZ 85622

COC Number:

Page / of /

Ambient Suite Analysis Requested Field Data 21.5 22.4 23.9 23.8 21.8 23.8 20 Temp 1520 1484 1420 1415 1402 1550 1515 Cond 7.78 7.04 7.18 6.79 7.40 7.07 6.72 Ē S Ŋ Ŋ S 2 3 2 S Unpres N N N 2 Preservatives 1450 1450 140 œ άO ω ∞ ∞ ø ∞ ∞ # of Cont. 10:25 14:00 10:40 10:10 10:50 Time 11:05 9:30 1/16/2007 1/16/2007 1/16/2007 1/16/2007 1/16/2007 1/16/2007 1/16/2007 1/16/2007 Date **DUP011607A** Location MH-15W MH-27 IW-13 IW-14 W-15 IW-16 IW-17 Lab Use Only

Sample Submitted By: Billy Doms	1	Telephone No. 520-648-8873	3	Fax No.
Report Results To: Billy Dorris	<u></u>	Telephone No. 520-648-8873	.3	Fax No. 520-648-8608
Samples Submitted on toe: (76) / No		^		Laboratory Name and Address:
Surrendered By: A. B. B.	Received By:	Date:	(180+Time: (05)	ACZ Laboratory
Surrendered By:	Received By:	Date:	Time:	30400 Downhill Drive
Comments/Special Instructions:				Steamboat Springs, CO 80487 Phone: 8003345493



Revised Analytical Report

March 12, 2007

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bill Dorris Phelps Dodge Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Project ID: OJ00XN ACZ Project ID: L60729

Bill Dorris:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 16, 2007. This project was assigned to ACZ's project number, L60729. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60729. 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 the requirements of NELAC.

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

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

12/Mar/07

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.





REPAD.01.11.00.01

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Case Narrative

Phelps Dodge Sierrita

March 12, 2007

Project ID: OJ00XN ACZ Project ID: L60729

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 7 ground water samples from Phelps Dodge Sierrita on January 16, 2007. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L60729. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

This project has been revised to include a separate abbreviated list of analytes, per client request.

Holding Times

All analyses were performed within EPA recommended holding times.

Samula Analysis

These samples were analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

PZ-7

ACZ Sample ID:

L60729-02

Date Sampled:

01/12/07 10:39

Date Received:

01/16/07

Sample Matrix:

Ground Water

	Field Data									
	-cirzimeter	EPA Method	Rosull	Que	ΧO	Units	of Diff.	201	Date	
	Conductivity (Field)	Field Measurement	920			mS/cm		***************************************	01/12/07 10:39	bd
	pH (Field)	Field Measurement	7.3			units			01/12/07 10:39	bd
	Temperature (Field)	Field Measurement	21.6			С			01/12/07 10:39	bd
	Metals Analysis	•								
	Parameter	EPA Method			χo			2.01	Desc	
-	Calcium, dissolved	M200.7 ICP	139		*	mg/L	0.2	1	01/17/07 20:08	msh
	Magnesium, dissolved		38.1			mg/L	0.2	1	01/17/07 20:08	msh
	Potassium, dissolved	M200.7 ICP	3.3		*	mg/L	0.3	2	01/17/07 20:08	msh
	Sodium, dissolved	M200.7 ICP	29.1			mg/L	0.3	2	01/17/07 20:08	msh
	oodiam, aloodiroa		20.1			1119/12	0.0	_	01/11/0/ 20:00	111311
	Wet Chemistry									
	Parameter	EPA Method	Resul	Out	K()	Hils	MDL	POL	Date	Arrativasi
	Alkalinity as CaCO3	SM2320B - Titration								
	Bicarbonate as CaCO3		105			mg/L	2	20	01/25/07 0:00	cas
	Carbonate as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
	Hydroxide as CaCO3			U		mg/L	2	20	01/25/07 0:00	cas
	Total Alkalinity		105			mg/L	2	20	01/25/07 0:00	cas
	Cation-Anion Balance	Calculation								
	Cation-Anion Balance		0.4			%			02/05/07 0:00	calc
	Sum of Anions		11.3			meq/L	0.1	0.5	02/05/07 0:00	calc
	Sum of Cations		11.4	•		meq/L	0.1	0.5	02/05/07 0:00	calc
	Chloride	M325.2 - Colorimetric	73		*	mg/L	1	5	01/22/07 14:04	jlf
	Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/26/07 21:13	cas/ci
	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.23			mg/L	0.02	0.1	01/25/07 21:17	pjb
	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	780			mg/L	10	20	01/17/07 10:52	lcp
	Sulfate	SM4500 SO4-D	340			. mg/L	10	50	01/18/07 10:31	lcp
	TDS (calculated)	Calculation	686			mg/L	10	50	02/05/07 0:00	calc
	TDS (ratio -	Calculation	1.14						02/05/07 0:00	calc
	and a second of the standard of the									

Arizona license number: AZ0102

measured/calculated)

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

TB011506A

ACZ Sample ID:

L60729-05

Date Sampled:

01/12/07 09:25

Date Received:

01/16/07 -

Sample Matrix: Ground Water

	•							
Field Data								
Parameter	EPA Method	Result	Qual	Xe Units	MDL	FOL	Dette	Analysi
Conductivity (Field)	Field Measurement	151		mS/cm			01/15/07 9:25	bd
pH (Field)	Field Measurement	5.1		units			01/15/07 9:25	bd
Temperature (Field)	Field Measurement	9.0		С			01/15/07 9:25	bd
Metals Analysis								
Parameter	EPA Wethor	Result	Oual	XQ Units	MDL	POL	2 Diates	
Calcium, dissolved	M200.7 ICP	5.5		* mg/L	0.2	1	01/17/07 20:20	msh
•	M200.7 ICP	0.6	В	mg/L	0.2	1	01/17/07 20:20	msh
Potassium, dissolved	M200.7 ICP	0.0	U	* mg/L	0.2	2	01/17/07 20:20	msh
Sodium, dissolved	M200.7 ICP	1.6	В	mg/L	0.3	2	01/17/07 20:20	msh
,	101200.7 101	1.0	D	ing/L	0.3	2	01/11/0/ 20.20	111511
Wet Chemistry					***************************************			
Parameter	EPA Mothod	Result	Onal	Pro Units	MDL	POL	Date	Arrelysi
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as			U	mg/L	2	20	01/25/07 0:00	cas
CaCO3		-						
Carbonate as CaCO3		•	U	mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3			U	mg/L	. 2	20	01/25/07 0:00	cas
Total Alkalinity			U	mg/L	2	20	01/25/07.0;00	cas
	Calculation							
Cation-Anion Balance		n/a		%			02/05/07 0:00	calc
Sum of Anions		N/A	_	meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		0.3	В	meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric		U	* mg/L	1	5	01/22/07 14:09	jlf
Fluoride	SM4500F-C		U	mg/L	0.1	0.5	01/31/07 15:14	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.03	В	mg/L	0.02	0.1	01/25/07 21:20	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	140		mg/L	10	20	01/17/07 10:56	lcp
Sulfate	SM4500 SO4-D		U	mg/L	10	50	01/20/07 12:10	seb
TDS (calculated)	Calculation		U .	mg/L	10	50	02/05/07 0:00	calc
TDS (ratio -	Calculation	n/a					02/05/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

EQB011506A

ACZ Sample ID: *L60729-06*

Date Sampled:

01/12/07 09:20

Date Received:

01/16/07

Sample Matrix: Ground Water

Field Data							**************************************		
Parameter	EPA Method	Result	Outel	ΧO	Units	MDL	Pol	Date	414-11-1-1
Conductivity (Field)	Field Measurement	1.62			mS/cm			01/15/07 9:20	bd
pH (Field)	Field Measurement	5.2			units			01/15/07 9:20	bd
Temperature (Field)	Field Measurement	8.5			C			01/15/07 9:20	þd
Metals Analysis									
Potromical	EPA Method	Regult	Olizal	7 C)	Units	MDL	201	Date	
Calcium, dissolved	M200.7 ICP	0.8	В	*	mg/L	0.2	1	01/17/07 20:24	msh
Magnesium, dissolved	M200.7 ICP		U.		mg/L	0.2	1	01/17/07 20:24	msh
Potassium, dissolved	M200.7 ICP		U	*	mg/L	0.3	2	01/17/07 20:24	msh
Sodium, dissolved	M200.7 ICP	0.8	В		mg/L	0.3	2	01/17/07 20:24	msh
M-1.01									
Wet Chemistry Parameter	EPA Method	Recall	Qual			WDL		Diotes.	
	SM2320B - Titration					111616		1075146	
Alkalinity as CaCO3	SW2320B - Htration	*	4.1				00	04/05/07 0 00	
Bicarbonate as CaCO3			U		mg/L	2	20	01/25/07 0:00	cas
Carbonate as CaCO3	3		U		mg/L	2	20	01/25/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/25/07 0:00	cas
Total Alkalinity			Ü		mg/L	2	20	01/25/07 0:00	cas
Cation-Anion Balance	Calculation					_			-
Cation-Anion Balance	•	n/a			%			02/05/07 0:00	caic
Sum of Anions		N/A			meg/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations			U		meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric		U	*	mg/L	1	5	01/22/07 14:10	ilf
Fluoride	SM4500F-C		U		mg/L	0.1	0.5	01/31/07 15:20	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved		U	*	mg/L	0.02	0.1	01/20/07 18:36	dia
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	120			mg/L	10	20	01/17/07 10:57	lcp
Sulfate	SM4500 SO4-D		U		mg/L	10	50	01/20/07 12:14	seb
TDS (calculated)	Calculation		υ		mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	n/a						02/05/07 0:00	calc

Arizona license number: AZ0102

Inorganic Reference

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

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. Allows for instrument and annual fluctuations.
PCNISCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest
Qia Stampile Tyr	ies

Of Sample 1	ypes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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

OC Sample Type Explanations

Blanks

Verifies that there is no or minimal contamination in the prep method or calibration procedure.

Control Samples

Verifies the accuracy of the method, including the prep procedure.

Duplicates

Verifies the precision of the instrument and/or method.

Spikes/Fortified Matrix

Determines sample matrix interferences, if any.

Standard

Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

- B Analyte concentration detected at a value between MDL and PQL.
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time.
- U Analyte was analyzed for but not detected at the indicated MDL

Mottood Reference

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples Supplement I, May 1994.
- (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
- (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (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.

Inorganic 96 Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Alkalinity as Ca			SM2320B	- Titration		-						
A - 7, 13		Analyzed	PONSEN	00	Same	Position	Drifts	Pare	Lorent		1111	inet Card
WG219648												
WG219648LCSW2	LCSW	01/25/07 16:04	WC061230-1	820		808.8	mg/L	98.6	80	120		
L60729-01DUP	DUP	01/25/07 17:46			118	117.1	mg/L				0.8	20
L60734-04DUP	DUP	01/25/07 19:06			261	261.1	mg/L				0	20
WG219648LCSW5	LCSW	01/25/07 19:19	WC061230-1	820		812	mg/L	99	80	120		
WG219648LCSW8	LCSW	01/25/07 22:26	WC061230-1	820		820.3	mg/L	100	80	120		
Aluminum, diss	olved		M200.7 1C	;P								
A97 B	1111	Analyzed	PRAISON	O.C	Sample		Britis		Lavier	and the		177
WG219356												
WG219356ICV	ICV	01/17/07 18:19	11061230-1	2		1.928	mg/L	96.4	95	105		
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.09	0.09		
WG219356LFB	LFB	01/17/07 18:39	11070117-2	1		1.004	mg/L	100.4	85	115		
L60726-03AS	AS	01/17/07 19:44	11070117-2	1	U	1.149	mg/L	114.9	85	115		
L60726-03ASD	ASD	01/17/07 19:48	11070117-2	1	U.	1.116	mg/L	111.6	85	115	2.91	20
Antimony, disse	olved		M200.8 IC	P-MS								
A67 IB	Type.	Analyzed	FOREST	QD	Sample	Forest	et als	Res	Leviger	10.0	1110	0.17
WG219303												
WG219303ICV	ICV	01/17/07 1:43	MS070108-2	.02		.02067	mg/L	103.4	90	110		
WG219303ICB	ICB	01/17/07 1:49				U	mg/L		-0.0012	0.0012		
WG219303LFB	LFB	01/17/07 1:55	MS061218-3	.00625		.00626	mg/L	100.2	85	115		
L60726-01AS	AS	01/17/07 2;06	MS061218-3	.00625	U	.00599	mg/L	95.8	70	130		
L60726-01ASD	ASD	01/17/07 2:12	MS061218-3	.00625	U	.00616	mg/L	98.6	70	130	2.8	20
Arsenic, dissolv	/ed		M200.8 IC	P-MS								
ASZ IB	Type	Attribuzed	PONESON	0.0	Samula	Farmer	Units	Rec	Lower	Upper	73718	Emit Aud
WG219303												
WG219303ICV	ICV	01/17/07 1:43	MS070108-2	.05		.0523	mg/L	104.6	90	110		
WG219303ICB	ICB ·	01/17/07 1:49				U	mg/L		-0.0015	0.0015		
WG219303LFB	LFB	01/17/07 1:55	MS061218-3	.05		.0524	mg/L	104.8	85	115		
L60726-01AS	AS	01/17/07 2:06	MS061218-3	.05	.0029	.05487	mg/L	103.9	70	130		
L60726-01ASD	ASD	01/17/07 2:12	MS061218-3	.05	.0029	.05413	mg/L	102.5	70	130	1.36	20
Barium, dissolv	ed		M200.7 IC	P								
A 672-18	Type	Anabrzed		gre-		Fourth	Units	74.	Lower	Upper	7.71	stpit 6.69
WG219356												
WG219356ICV	ICV	01/17/07 18:19	11061230-1	2		2.081	mg/L	104.1	95	105		
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.009	0.009		
WG219356LFB	LFB	01/17/07 18:39	11070117-2	.5		.4888	mg/L	97.8	85	115		
L60726-03AS	AS	01/17/07 19:44	11070117-2	.5	.029	.5627	mg/L	106.7	85	115		
L60726-03ASD	ASD	01/17/07 19:48	II070117-2	.5	.029	.5582	mg/L	105.8	85	115	8.0	20

Phelps Dodge Sierrita

Project ID:

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					nation are by many colored					inimani kanana nyaéna	Wildeline systems	nacytopolicano) in the	
Beryllium, disse	olved		M200.8 IC	CP-MS									
Acz III	Type	Analyzed	PCNSCA	GC	Sample	Foliati	Units	Rec	Lower	Upper	RPD	in it	Cital
WG219303													
WG219303ICV	ICV	01/17/07 1:43	MS070108-2	.05		.04918	mg/L	98.4	90	110			
WG219303ICB	ICB	01/17/07 1:49			V -	U	mg/L		-0.0003	0.0003			
WG219303LFB	LFB	01/17/07 1:55	MS061218-3	.05		.04926	mg/L	98.5	85	115			
L60726-01AS	AS	01/17/07 2:06	MS061218-3	.05	U	.04711	mg/L	94.2	70	130			
L60726-01ASD	ASD	01/17/07 2:12	MS061218-3	.05	U	.04736	mg/L	94.7	70	130	0.53	20	
Cadmium, diss	olved		M200.8 IC	CP-MS									
ACZ ID	Type	Analyszad	PENSON	GC	Sample	Fairt	Units	Res	Lovier	Spiper	PPD	Limit	Ottel
WG219303													
WG219303ICV	ICV	01/17/07 1:43	MS070108-2	.05		.05063	mg/L	101.3	90	110			
WG219303ICB	ICB	01/17/07 1:49				U	mg/L		-0.0003	0.0003			
WG219303LFB	LFB	01/17/07 1:55	MS061218-3	.05		.04998	mg/L	100	85	115			
L60726-01AS	AS	01/17/07 2:06	MS061218-3	.05	U	.0467	mg/L	93.4	70	130			
L60726-01ASD	ASD	01/17/07 2:12	MS061218-3	.05	U	.04663	mg/L	93.3	70	130	0.15	20	
Calcium, dissol	ved		M200.7 IC	CP .									
ACZ ID	lype:	Analyzed	PERSON.	oc	Same	Fourt	Units	Rec	he a	Upper	FIFE	Emil	Girat
WG219356													
WG219356ICV	ICV	01/17/07 18:19	11061230-1	100		98.22	mg/L	98.2	95	105			
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.6	0.6			
WG219356LFB	LFB	01/17/07 18:39	11070117-2	67.95918		66.36	mg/L	97.6	85	115			
L60726-03AS	AS	01/17/07 19:44	11070117-2	67.95918	482	533.92	mg/L	76.4	85	115			M
L60726-03ASD	ASD	01/17/07 19:48	11070117-2	67.95918	482	529.52	mg/L	69.9	85	115	0.83	20	M
Chloride			M325.2 -	Colorimetric	5								
AC72 (18	Type	Analyzed	PENISON	OC	Samula	Formo	11:15	Rec	Lower	Upper	FIFTE	Limit	Duși
WG219489													
WG219489ICV	ICV	01/22/07 12:00	WI061113-3	55		56.7	mg/L	103.1	90	110			
WG219489ICV1	ICV	01/22/07 12:03	WI061113-3	55		54.2	mg/L	98.5	90	110			
WG219489ICB	ICB	01/22/07 12:04				U	mg/L		-3	3			
WG219490													
WG219490ICV	ICV	01/22/07 13:56	WI061113-3	55		56.9	mg/L	103.5	90	110			
WG219490ICB	ICB	01/22/07 13:56				U	mg/L		-3	3			
WG219490LFB1	LFB	01/22/07 13:57	WI061127-1	30		29	mg/L	96.7	90	110			
L60727-02DUP	DUP	01/22/07 14:01			56	55.7	mg/L				0.5	20	
WG219490LFB2	LFB	01/22/07 14:25	WI061127-1	30		28.2	mg/L	94	90	110			
L60727-01AS	AS	01/22/07 14:40	WI061127-1	1200	1970	3361	mg/L	115.9	90	110			M
Chromium, dis	solved		M200.7 IC	CP CP			******						
A67/IB	Tyre				Sample	Passes	Units	Rec	10000	1000	MERE	Limit	Otter
WG219356													
WG219356ICV	ICV	01/17/07 18:19	11061230-1	2		1,924	mg/L	96.2	95	105			
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.03	0.03			
WG219356LFB	LFB	01/17/07 18:39	11070117-2	.5		.471	mg/L	94.2	85	115			
L60726-03AS	AS	01/17/07 19:44	11070117-2	.5	U	.49	mg/L	98	85	115			
20012000110					-			-					

ACZ Project ID: L60729

Phelps Dodge Sierrita

Project ID:	0	J00XN							,				
Cobalt, dissolve	ed		M200.7 I	CP						eringi inglogen dibalajis musi	nen enisusen elitaija		
417	100	Analyzed	Political	OC	Sample	Found	Units	Rec	Lower		FFD	Limit	Cara
WG219401													
WG219401ICV	ICV	01/18/07 21:24	II061230-1	2		1.924	mg/L	96.2	95	105			
WG219401ICB	ICB	01/18/07 21:28	1100 1200 1	_		U	mg/L	00.E	-0.03	0.03			
WG219401LFB	LFB	01/18/07 21:44	11070117-2	.5		.49	mg/L	98	85	115			
L60726-03AS	AS	01/18/07 22:09	11070117-2	.5	U	.482	mg/L	96.4	85	115			
_60726-03ASD	ASD	01/18/07 22:21	11070117-2	.5	U	.485	mg/L	97	85	115	0.62	20	
L60729-05AS	AS	01/18/07 22:50	11070117-2	.5	U	.476	mg/L	95.2	85	115			
L60729-05ASD	ASD	01/18/07 22:54	11070117-2	.5	U	.482	mg/L	96.4	85	115	1.25	20	
Conductivity @	25C		M120.1 -	Meter	***************************************							***************************************	
ACZ ID	Туро	Analyzad	PONSON	G) C	Sample	Found	Units	Rac	Lower	Upper		limit	
WG219648													
WG219648PBW1	PBW	01/25/07 15:52				U	umhos/cn		-10	10			
WG219648LCSW1	LCSW	01/25/07 15:54	PCN25346	1408.8		1450	umhos/cm	102.9	80	120			
-60729-01DUP	DUP	01/25/07 17:46			1190	1169	umhos/cn				1.8	20	
.60734-04DUP	DUP	01/25/07 19:06			3390	3400	umhos/cm				0.3	20	
NG219648PBW2	PBW	01/25/07 19:08				U	umhos/cm		-10	10			
WG219648LCSW4	LCSW	01/25/07 19:09	PCN25346	1408.8		1450	umhos/cn	102.9	80	120			
WG219648LCSW7	LCSW	01/25/07 22:15	PCN25346	1408.8		1470	umhos/cn	104.3	80	120			
Copper, dissolv	red		M200.7 I	CP	·			***********					
ACZ ID	Type	Analyzaus	PRINSON	9.0	Sample	Found	Units	Rec	LOWER	Upper	77.0	Limit	2001
WG219356													
WG219356ICV	ICV	01/17/07 18:19	11061230-1	2		1.905	mg/L	95.3	95	105			
NG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.03	0.03			
WG219356LFB	LFB	01/17/07 18:39	II070117-2	.5		.473	mg/L	94.6	85	115			
_60726-03AS	AS	01/17/07 19:44	11070117-2	.5	.02	.52	mg/L	100	85	115			
-60726-03ASD	ASD	01/17/07 19:48	11070117-2	.5	.02	.511	mg/L	98.2	85	115	1.75	20	
Cyanide, total			M335.4 -	Colorimetr	ic w/ distil	lation							
A\$72.13	Type	ASSSYZER	PONSON	0.0	Sample	Found	Units	Rec	Lavier	Upper	* * 1	Limit	O ₁ est
WG219550													
WG219550ICV	ICV	01/23/07 14:03	WI070111-3	.3		.2873	mg/L	95.8	90	110			
WG219550ICB	ICB	01/23/07 14:04				U	mg/L		-0.015	0.015			
NG219488LRB	LRB	01/23/07 14:05				U	mg/L		-0.015	0.015			
WG219488LFB	LFB	01/23/07 14:06	WI070111-7	.2		.1811	mg/L	90.6	90	110			
_60726-01LFM	LFM	01/23/07 14:09	WI070111-7	.2	U	.2072	mg/L	103.6	90	110			
_60729-03LFM	LFM	01/23/07 14:21	WI070111-7	.2	.007	1845	mg/L	88.8	90	110			N
_60685-11DUP	DUP	01/23/07 14:31			U	U	mg/L				0	20	F
	D. 10												_

U

U

mg/L

L60729-02DUP

DUP

01/23/07 14:33

20

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Phelps Dodge Sierrita

Project ID: OJ00XN

ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD L WG219721 WG219721ICV ICV 01/26/07 18:23 WC070126-1 1.996 1.98 mg/L 99.2 95 105	mit Cust
WG219721ICV ICV 01/26/07 18:23 WC070126-1 1.996 1.98 mg/L 99.2 95 105	
1119/1111 00/1111	
WG219721ICB ICB 01/26/07 18:29 U mg/L -0.3 0.3	
WG219721LFB1 LFB 01/26/07 18:35 WC061021-1 4.99902 4.77 mg/L 95.4 90 110	
L60729-02AS AS 01/26/07 21:20 WC061021-1 4.99902 .3 5.19 mg/L 97.8 85 115	•
L60729-02DUP DUP 01/26/07 21:28 .3 .36 mg/L 18.2	20 RA
WG219721LFB2 LFB 01/26/07 21:31 WC061021-1 4.99902 4.98 mg/L 99.6 90 110	
WG219819	
WG219819ICV ICV 01/31/07 12:46 WC070126-1 1.996 2.05 mg/L 102.7 95 105	
WG219819ICB ICB 01/31/07 12:53 U mg/L -0.3 0.3	
WG219819LFB1 LFB 01/31/07 12:59 WC061021-1 4.99902 5.1 mg/L 102 90 110	
WG219819LFB2 LFB 01/31/07 14:55 WC061021-1 4.99902 5.07 mg/L 101.4 90 110	
L60734-06AS AS 01/31/07 15:53 WC061021-1 4.99902 1 5.48 mg/L 89.6 85 115	
L60734-06DUP DUP 01/31/07 15:55 1 1.06 mg/L 5.8	20
Iron, dissolved M200.7 ICP	
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD L	inst Cheek
WG219356	
WG219356ICV ICV 01/17/07 18:19 II061230-1 2 1.949 mg/L 97.5 95 105	
WG219356ICB ICB 01/17/07 18:23 U mg/L -0.06 0.06	
WG219356LFB LFB 01/17/07 18:39 II070117-2 1 .983 mg/L 98.3 85 115	
L60726-03AS AS 01/17/07 19:44 II070117-2 1 .03 1.046 mg/L 101.6 85 115	
L60726-03ASD ASD 01/17/07 19:48 II070117-2 1 .03 1.039 mg/L 100.9 85 115 0.67	20
Lead, dissolved M200.8 ICP-MS	
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD L	imit Gual
WG219303	
WG219303ICV ICV 01/17/07 1:43 MS070108-2 .05 .0543 mg/L 108.6 90 110	
WG219303ICB ICB 01/17/07 1:49 .00013 mg/L -0.0003 0.0003	
WG219303LFB LFB 01/17/07 1:55 MS061218-3 .05 .05145 mg/L 102.9 85 115	
L60726-01AS AS 01/17/07 2:06 MS061218-3 .05 .0014 .04879 mg/L 94.8 70 130	
100700 04400	20
Magnesium, dissolved M200.7 ICP	
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD L	nut Orra
WG219356	
WG219356ICV ICV 01/17/07 18:19 II061230-1 100 95.51 mg/L 95.5 95 105	
WG219356ICB ICB 01/17/07 18:23 U mg/L -0.6 0.6	
WG219356LFB LFB 01/17/07 18:39 II070117-2 54.98614 53.03 mg/L 96.4 85 115	
L60726-03AS AS 01/17/07 19:44 II070117-2 54.98614 172 223.66 mg/L 94 85 115	*
100700 00100	20

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID: L6072

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Manganese, dis	solved		M200.7 I	CP									
A) o/ 2 2	Type	Arabyrod	PENSON	Ö(C	Sample	Faimel	Usits	Res	1,111	Harrist	FIPE.	Limit	Oriel
WG219356													
WG219356ICV	ICV	01/17/07 18:19	11061230-1	2		1.9002	mg/L	95	95	105			
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.015	0.015			
WG219356LFB	LFB	01/17/07 18:39	11070117-2	.5		.4751	mg/L	95	85	115			
L60726-03AS	AS	01/17/07 19:44	11070117-2	.5	.036	.5231	mg/L	97.4	85	115			
L60726-03ASD	ASD	01/17/07 19:48	11070117-2	.5	.036	.5211	mg/L	97	85	115	0.38	20	
Mercury, dissolv	/ed		M245.1 (CVAA									
A(87/c)[8]		Analyzad	Tel Victoria	[9]		Folia	Units	T. C.	Lower	lipper	71778		
WG219411													
WG219411ICV	ICV	01/22/07 16:31	11070115-2	.005		.00497	mg/L	99.4	95	105			* .
WG219411ICB	ICB	01/22/07 16:33				U	mg/L		-0.0002	0.0002			
WG219411LRB	LRB	01/22/07 16:36				U	mg/L		-0.00044	0.00044			
WG219411LFB	LFB	01/22/07 16:38	11070104-3	.002		.00198	mg/L	99	85	115			
L60726-01LFM	LFM	01/22/07 17:15	11070104-3	.002	U	.0019	mg/L	95	85	115			
L60726-01LFMD	LFMD	01/22/07 17:18	11070104-3	.002	U	.00194	mg/L	97	85	115	2.08	20	
Molybdenum, d	issolve	d	M200.7	ICP									
A(872.1)	Type	Armalyzza		0]8	5.71	Foliare	Units	F. Ca	1,000	loper	7.7	Linen	Ghal
WG219356													
WG219356ICV	1CV	01/17/07 18:19	11061230-1	2		1.973	mg/L	98.7	95	105			
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.03	0.03			
WG219356LFB	LFB	01/17/07 18:39	11070117-2	.5		.476	mg/L	95.2	85	115			
L60726-03AS	AS	01/17/07 19:44	11070117-2	.5	U	.542	mg/L	108.4	85	115			
L60726-03ASD	ASD	01/17/07 19:48	11070117-2	.5	U	.531	mg/L	106.2	85	115	2.05	20	
Nickel, dissolve	d		M200.7	ICP									
A9Z (8	Туре	Assetyzed		2/6	Sample	FOREST	Julis	Ren	Legisler	pper	R/FID	irrit	(4) (5)
WG219401													
WG219401ICV	ICV	01/18/07 21:24	11061230-1	2		1.939	mg/L	97	95	105			
WG219401ICB	ICB	01/18/07 21:28				Ú	mg/L		-0.03	0.03			
WG219401LFB	LFB	01/18/07 21:44	11070117-2	.5		.488	mg/L	97.6	85	115			
L60726-03AS	AS	01/18/07 22:09	11070117-2	.5	U	.475	mg/L	95	85	115			
L60726-03ASD	ASD	01/18/07 22:21	11070117-2	.5	U	.487	mg/L	97.4	85	115	2.49	20	
L60729-05AS	AS	01/18/07 22:50	11070117-2	.5	U	.477	mg/L	95.4	85	115			
L60729-05ASD	ASD	01/18/07 22:54	11070117-2	.5	U	.48	mg/L	96	85	115	0.63	20	

Phelps Dodge Sierrita

Project ID:

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Nitrate/Nitrite a	s N		M353.2 -	H2SO4 pre	served								
ACZ TI	Type	Analyzed	PONSEN	O(.	Sample	Found	Units	7		Epper	RFD	Limit	E ₁ 1111
WG219470													
WG219470ICV	ICV	01/20/07 18:12	WI061207-10	2.416		2.346	mg/L	97.1	. 90	110			
WG219470ICB	ICB	01/20/07 18:13				U	mg/L		-0.06	0.06			
WG219470LFB1	LFB	01/20/07 18:14	WI060906-4	2		1.87	mg/L	93.5	90	110			
L60729-06DUP	DUP	01/20/07 18:37			U	.025	mg/L				200	20	R
WG219470LFB2	LFB	01/20/07 18:52	WI060906-4	2		1.805	mg/L	90.3	90	110			
L60726-03AS	AS	01/20/07 19:18	WI060906-4	10	7.7	17.8	mg/L	101	90	110			
WG219671													
WG219671ICV	ICV	01/25/07 19:28	WI061207-10	2,416		2.307	mg/L	95.5	90	110			
WG219671ICB	ICB	01/25/07 19:29				U	mg/L	00,0	-0.06	0.06			
WG219674							-						
WG219674ICV	ICV	01/25/07 21:07	WI061207-10	2.416		2.305	mg/L	95.4	90	110			
WG219674ICB	ICB	01/25/07 21:08				U	mg/L		-0.06	0.06			
WG219674LFB	LFB	01/25/07 21:09	WI060906-4	2		1.921	mg/L	96.1	90	110			
L60726-01AS	AS	01/25/07 21:46	WI060906-4	10	5.3	15.85	mg/L	105.5	90	110			
L60726-04DUP	DUP	01/25/07 21:49			17.1	17.31	mg/L				1.2	20	
pH (lab)	***************************************	***************************************	M150.1 -	Electrometr	ic	***************************************		*******					***************************************
A 6/2 (10	Tyres	Analyzed		OC			lanite.	Fig.	Conver	i in the			
WG219648													
WG219648LCSW3	LCSW	01/25/07 16:07	PCN25442	6		6.09		404.5	00	440			
L60729-01DUP	DUP	01/25/07 17:46	F G N 2 3 4 4 2	U	7.0		units	101.5	90	110	• •		
L60734-04DUP	DUP	01/25/07 17:46			7.8 7.7	7.77 7.75	units				0.4	20	
WG219648LCSW6	LCSW	01/25/07 19:00	PCN25442	6	1.1	6.1	units units	101.7	90	440	0.6	20	
WG219648LCSW9	LCSW	01/25/07 22:29	PCN25442	6		6.12	units	101.7	90	110			
* ***		0 1720/07 22:20			·····	0.12	uriits	102	90	110			
Potassium, diss	solvea	Analyze	M200.7 K	JP Sign	Samole	Possed		Rec	Longo				
										Especia		L _I T 1	Deal
WG219356													
WG219356ICV	ICV	01/17/07 18:19	11061230-1	20		20.42	mg/L	102.1	95	105			
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.9	0.9			
										445			
WG219356LFB	LFB	01/17/07 18:39	11070117-2	99.51014		100.36	mg/L	100.9	85	115			
L60726-03AS	LFB AS	01/17/07 18:39 01/17/07 19:44	11070117-2	99.51014	6.9	129.47	mg/L mg/L	123.2	85 85	115			M
	LFB	01/17/07 18:39			6.9 6.9						1.52	20	
L60726-03AS L60726-03ASD Residue, Filtera	LFB AS ASD ble (TDS	01/17/07 18:39 01/17/07 19:44 01/17/07 19:48 6) @180C	II070117-2 II070117-2	99.51014	6.9	129.47	mg/L	123.2	85	115	1.52	20	
L60726-03AS L60726-03ASD Residue, Filtera	LFB AS ASD	01/17/07 18:39 01/17/07 19:44 01/17/07 19:48	II070117-2 II070117-2	99.51014 99.51014	6.9	129.47	mg/L mg/L	123.2	85	115		20 Linvit	
L60726-03AS L60726-03ASD Residue, Filtera	LFB AS ASD ble (TDS	01/17/07 18:39 01/17/07 19:44 01/17/07 19:48 6) @180C	II070117-2 II070117-2 M160.1 -	99.51014 99.51014 Gravimetric	6.9	129.47 127.52	mg/L mg/L	123.2 121.2	85 85	115 115			
L60726-03ASD L60726-03ASD Residue, Filtera ACZ ID WG219324	LFB AS ASD ble (TDS	01/17/07 18:39 01/17/07 19:44 01/17/07 19:48 6) @180C	II070117-2 II070117-2 M160.1 -	99.51014 99.51014 Gravimetric	6.9	129.47 127.52	mg/L mg/L	123.2 121.2	85 85	115 115 Upper			
L60726-03AS L60726-03ASD Residue, Filtera ACZ ID	LFB AS ASD ble (TDS	01/17/07 18:39 01/17/07 19:44 01/17/07 19:48 6) @180C Analyzed	II070117-2 II070117-2 M160.1 -	99.51014 99.51014 Gravimetric	6.9	129.47 127.52 Found	mg/L mg/L Linits	123.2 121.2	85 85	115 115			M M

ACZ Project ID: L60729

Phelps Dodge Sierrita

Project ID:

OJ00XN

FTOJOCETO.		JUUNIN		-									
Selenium, disse	oived		M200.8 I	CP-MS									
A67210	Type	Amalyzed	PCRESON	Qt	Sample	Found	Units	Plac	L PINTER	Lipper	PIPE	inni	C-12
WG219303													
WG219303ICV	ICV	01/17/07 1:43	MS070108-2	.05		.0534	mg/L	106.8	90	110			
WG219303ICB	ICB	01/17/07 1:49				U	mg/L		-0.0003	0.0003			
WG219303LFB	LFB	01/17/07 1:55	MS061218-3	.05		.04919	mg/L	98.4	85	115			
L60726-01AS	AS	01/17/07 2:06	MS061218-3	.05	.0113	.06609	mg/l.	109.6	70	130			
L60726-01ASD	ASD	01/17/07 2:12	MS061218-3	.05	.0113	.06467	mg/L	106.7	70	130	2.17	20	
Sodium, dissol	ved		M200.7 10	CP							-		
\972 C		Analyzed		αc	Sample	Forest	Dhits		Lower	Slew or	RPD.	- infil	
WG219356													
WG219356ICV	ICV	01/17/07 18:19	11061230-1	100		100.02	mg/L	100	95	105			
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.9	0.9			
WG219356LFB	LFB	01/17/07 18:39	11070117-2	99.90786		99.91	mg/L	100	85	115			
L60726-03AS	AS	01/17/07 19:44	11070117-2	99.90786	247	343.55	mg/L	96.6	85	115			
L60726-03ASD	ASD	01/17/07 19:48	11070117-2	99.90786	247	339.93	mg/L	93	85	115	1.06	20	
Sulfate			SM4500	SO4-D									
	1700		Pensen	eje.	Sample	Follow	Units	Rec	Legion	lipper	Trip is	Limit	Post
WG219329													
WG219329PBW	PBW	01/17/07 12:15				U	mg/L		-30	30			
WG219329LCSW	LCSW	01/17/07 12:18	WC061207-2	100		98	mg/L	98	80	120			
L60729-01DUP	DUP	01/17/07 13:32			390	357	mg/L				8.8	20	
WG219377													
WG219377PBW	PBW	01/18/07 10:24				U	mg/L		-30	30			
WG219377LCSW	LCSW	01/18/07 10:27	WC061207-2	100		101	mg/L	101	80	120			
L60734-09DUP	DUP	01/18/07 11:07			1700	1711	mg/L				0.6	20	
WG219460													
WG219460PBW	PBW	01/20/07 11:53				U	mg/L		-30	30			
WG219460LCSW	LCSW	01/20/07 11:56	WC061207-2	100		95	mg/L	95	80	120			
L60729-04DUP	DUP	01/20/07 12:07			3210	3305	mg/L				2.9	20	
Thallium disso	had	,	M200.8 Id	CP_MS									

Thallium, disso	olved		M200.8 IC	P-MS									
ACZ ID	Type	Analyzed	PCARSON		7,77	- 000	l entr	Ras		Sieprei			
WG219303													
WG219303ICV	ICV	01/17/07 1:43	MS070108-2	.056		.05743	mg/L	102.6	90	110			
WG219303ICB	ICB	01/17/07 1:49				U	mg/L		-0.0003	0.0003			
WG219303LFB	LFB	01/17/07 1:55	MS061218-3	.05		.05103	mg/L	102.1	85	115			
L60726-01AS	AS	01/17/07 2:06	MS061218-3	.05	U	.04836	mg/L	96.7	70	130			
L60726-01ASD	ASD	01/17/07 2:12	MS061218-3	.05	U	.04834	mg/L	96.7	70	130	0.04	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Zinc, dissolved	d		M200.7 I	СР									
	Type	Applyzed	PONSON		Sample	Foliati	Unite	Rec	Lower	10000	RPD	Limit	Qual
WG219356													
WG219356ICV	ICV	01/17/07 18:19	11061230-1	2		1.906	mg/L	95.3	95	105			
WG219356ICB	ICB	01/17/07 18:23				U	mg/L		-0.03	0.03			
WG219356LFB	LFB	01/17/07 18:39	11070117-2	.5		.482	mg/L	96.4	85	115			
L60726-03AS	AS	01/17/07 19:44	11070117-2	.5	.32	.845	mg/L	105	85	115			
L60726-03ASD	ASD	01/17/07 19:48	11070117-2	.5	.32	.833	mg/L	102.6	85	115	1.43	20	

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

L60729-01	WG219356	Calcium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219490	Chloride	M325.2 - Colorimetric	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219721	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60729-02	WG219356	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219490	Chloride	M325.2 - Colorimetric	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219721	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60729-03	WG219356	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219490	Chloride	M325.2 - Colorimetric	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60729-04	WG219356	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample
		Potassium, dissolved	M200.7 ICP	M1	was acceptable. Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219490	Chloride	M325.2 - Colorimetric	M1	
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	·
	WG219324	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	ZO	TDS concentration is based on a final residue greater than 200 mg.

Inorganic Extended **Qualifier Report**

Phelps Dodge Sierrita

A 9 72 13	WORKNUM	PARAMETER	METHOD		DESCRIPTION
L60729-05	WG219356	Calcium, dissolved	M200.7 ICP	М3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219490	Chloride	M325.2 - Colorimetric	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60729-06	WG219356	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219490	Chloride	M325.2 - Colorimetric	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219470	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60729-07	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60729

No certification qualifiers associated with this analysis



2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60729

Date Received:

1/16/2007

Received By:

Date Printed:

1/16/2007

Receipt Verification

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

NO	NA
	Х
	Х
Х	
	Х
	Х

Exceptions: If you answered no to any of the above questions, please describe

One vial for sample #5 was received broken.

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
1234	4.9	16

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

Notes

Sample Receipt

Phelps Dodge Sierrita OJ00XN ACZ Project ID:

L60729

Date Received:

1/16/2007

Received By:

Sannia Comenna Preservation

SAMPLE	CLIENT ID	R<2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60729-01	PZ-6		Υ		Υ		Name and Publisher Street			**************		
L60729-02	PZ-7		Y		Y							
L60729-03	BW-4		Υ		Υ							
L60729-04	PZ-4		Y		Y							
L60729-05	TB011506A		Y		Y							
L60729-06	EQB011506A		Υ		Υ							
	TB010307-05									Χ		

Sanara са Меневица в Виска до учество в кажала в

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

 $^{^{\}star}$ pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By:	

P.O. Box 527, Green Valley, AZ 85622

ANALYTICAL REQUEST SHEET Chain of Custody OH - 0J00XN

Page / of /

					Prese	Preservatives	Sé			Control of the Contro	Field Data	<u> Anna manifest proposition in a constant a </u>		-	Schoolsgrad
Lab Use Only	Location	Date	Time	# of Cont.	H202	NaOH	Unpres.		Hd.	Cond	Temp	······································		Analysis Requested	494
	PZ-6	1/12/2007	12:35	80	7		7	5	7.03	3 1014	19.8		adamin pilak carkat-sa ma	Ambient Suite	te
	7-Z4	1/12/2007	10:39	&			7	2	7.30	920	21.6			Ambient Suite	te
	BW-4	1/12/2007	9:30	80	-	-	7	2	6.72	3300	21.2			Ambient Suite	Į.
	PZ-4	1/15/2007	9:02	æ	-		7	5	6.80) 4210	15.1			Ambient Suite	ie
	TB011506A	1/15/2007	9:25	∞	-	-	7	5	5.11	151	O)			Ambient Suite	te
	EQB011506A	1/15/2007	9:20	80			2	5	5.20) 162	8.5			Ambient Suite	ite
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Sample Subm	Sample Submitted By: Billy Dorris				r-1	elepho	one No	520-€	Telephone No. 520-648-8873			Fax	Fax No.		
Report Result	Report Results To: Billy Dorris				-1	elepho	ne No	. 520-	Telephone No. 520-648-8873			Fax	Fax No. 520-648-8608	348-8608	
Samples Subr	Samples Submitted on Ice: (See / No				Ç	^			_	\&	***************************************	ζ	oratory Na	Laboratory Name and Address:	
Surrendered By: 7	4. Dill 7. Don	3	Received By:		$\langle k \rangle$				Date:	1100	Date: ' Q'UTIme: L'	Z Z	ACZ I	ACZ Laboratory	
Surrendered By:	3y;	Manual Street Section Control Section	Received By:)	,			Date:	en graneren arren ekkanan ki	Time:		3040(30400 Downhill Drive	1
Comments/Sp	Comments/Special Instructions:				والمنافقة والمسائلة والمسا						متنطقة والمستعددة والمردوات		Phon	Steamboat Springs, CO 80487 Phone: 8003345493	8048/
CHARLES CONTRACTOR IN THE CONTRACTOR CONTRACTOR	THE REPORT OF THE PROPERTY OF	Cadestaccustomacoca Characteristics (Constitution	THE RESERVE OF THE PROPERTY OF THE PARTY OF	THE RESERVE OF THE PERSON OF T	Third Section 1	Contract of the Contract of th	Control Married	ACCOUNT AND ADDRESS OF	Chelcipal melecoccus	HISTORY CONTRACTOR OF THE PERSONS ASSESSMENT	WEST CONTRACTOR OF THE PROPERTY OF THE PROPERT	(Delication of the Control of the Co	escentia atracontină comp	CONTROL SECTION SECTIO	COMPANY OF THE PROPERTY OF THE PARTY.

February 05, 2007

Report to:

Ned Hall

Phelps Dodge Sierrita

P.O. Box 527 6200 W. Duval Mine Rd.

Green Valley, AZ 85622-0527

Bill to:

Accounts Payable
Phelps Dodge Sierrita

P.O. Box 2671

Phoenix, AZ 85002-2671

Project ID: OJ00XN ACZ Project ID: L60685

Ned Hall:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 12, 2007. This project has been assigned to ACZ's project number, L60685. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60685. 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 March 05, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

5. Habermehl

06/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-19

ACZ Sample ID:

L60685-07

Date Sampled:

01/11/07 14:20

Date Received:

01/12/07

Sample Matrix:

Ground Water

		<u>XALISTINO NY INDONESIA NA BANDANA NY INDONESIA NY INDONE</u>	massachter en person							
Field Data										
Parameter	EPA Method		Result	Qual	XO.	Units	MDL	POL	Desta	1121751
Conductivity (Field)	Field Measurement		1802			mS/cm			01/11/07 14:20	bd
pH (Field)	Field Measurement		7.2			units			01/11/07 14:20	bd
Temperature (Field)	Field Measurement		25.1	,		C			01/11/07 14:20	bd
Metals Analysis										
Parameter	EPA Nethos		Textill.	Ougl	X o	Units	10.1	201	B) :: 8 c.	1.75
Calcium, dissolved	M200.7 ICP		486		*	mg/L	0.2	1	01/12/07 22:31	gme
Magnesium, dissolved	M200.7 ICP		120			mg/L	0.2	1	01/12/07 22:31	gme
Potassium, dissolved	M200.7 ICP		7.6		*	mg/L	0.3	2	01/12/07 22:31	gme
Sodium, dissolved	M200.7 ICP		117		*	mg/L	0.3	2	01/12/07 22:31	gme
							0.0	-	01112101 22.01	gillo
Wet Chemistry										
Parameter	EPA Method		Result		110	Units	MBL	7.51	Dette	Arrely St
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3			145			mg/L	2	20	01/23/07 0:00	cas
Carbonate as CaCO	3			U		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO3	3			U		mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity			145			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation									
Cation-Anion Balance	9		-1.7			. %			02/05/07 0:00	calc
Sum of Anions			40.9			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations	•		39.5			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric		135		*	mg/L	2	10	01/19/07 15:57	nps
Fluoride	SM4500F-C		0.3	В	*	mg/L	0.1	0.5	01/31/07 14:12	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved		2.00			mg/L	0.02	0.1	01/17/07 21:56	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	•	2700			mg/L	10	20	01/15/07 12:50	[lcp]
Sulfate	SM4500 SO4-D		1630			mg/L	10	50	01/13/07 13:42	seb
TDS (calculated)	Calculation		2580			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.05			v			02/05/07 0:00	calc
measureu/calculateu)										

Arizona license number: AZ0102

L60685: Page 2 of 21

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-20

Date Sampled:

01/11/07 14:15

Date Received:

01/12/07

Sample Matrix: Ground Water

Field Data									
Payaintakai	EPA Method	Result	Cara			MDL			Arralifet
Conductivity (Field)	Field Measurement	2360			mS/cm			01/11/07 14:15	bd
pH (Field)	Field Measurement	7.2			units			01/11/07 14:15	. bd
Temperature (Field)	Field Measurement	26.4			С			01/11/07 14:15	bd
Metals Analysis									
Parameter	EPA Method	Result	Qual	ΧO	Units	MDL	POL	Date	American
Calcium, dissolved	M200.7 ICP	473		*	mg/L	0.2	1	01/12/07 22:35	gme
Magnesium, dissolved	M200.7 ICP	118			mg/L	0.2	. 1	01/12/07 22:35	gme
Potassium, dissolved	M200.7 ICP	8.1		*	mg/L	0.3	. 2	01/12/07 22:35	gme
Sodium, dissolved	M200.7 ICP	129		*	mg/L	0.3	2	01/12/07 22:35	gme
Wet Chemistry									
Parameter	EPA Method	Resul	Ouel	7(0)	Units	MDL	FOL	Desce	A DELTE
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		139			mg/L	2	20	01/23/07 0:00	cas
CaCO3						- .			-
Carbonate as CaCO3	3		U		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	. 2	20	01/23/07 0:00	cas
Total Alkalinity		139			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	•	-1.9			%			02/05/07 0:00	calc
Sum of Anions		40.7			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		39.2			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	131		*	mg/L	2	10	01/19/07 15:59	nps
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/31/07 14:14	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.32			mg/L	0.02	0.1	01/17/07 21:57	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2370			mg/L	10	20	01/15/07 12:51	lcp
Sulfate	SM4500 SO4-D	1630			mg/L	10	50	01/13/07 13:45	seb
TDS (calculated)	Calculation	2570			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	0.92						02/05/07 0:00	calc

Arizona license number: AZ0102

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2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-21

ACZ Sample ID: **L60685-10**

Date Sampled:

01/11/07 14:00

Date Received:

01/12/07

Sample Matrix: Ground Water

Field Data									
Parameter	EPA Method	Result	e i sa i	ΧO	l I i i i s	Missia	FOL	Date	
Conductivity (Field)	Field Measurement	1848			mS/cm			01/11/07 14:00	bd
pH (Field)	Field Measurement	7.2			units			01/11/07 14:00	bd
Temperature (Field)	Field Measurement	27.8			С			01/11/07 14:00	bd
Metals Analysis	i e								
Parameter	EPA Method	Result	Sual	ΧG	Linits	MID	POL	Date	
Calcium, dissolved	M200.7 ICP	480		*	mg/L	0.2	1	01/12/07 22:43	gme
Magnesium, dissolved	M200.7 ICP	119			mg/L	0.2	1	01/12/07 22:43	gme
Potassium, dissolved	M200.7 ICP	10.8		*	mg/L	0.3	2	01/12/07 22:43	gme
Sodium, dissolved	M200.7 ICP	141		*	mg/L	0.3	2	01/12/07 22:43	gme
Wet Chemistry									
Parameter	EPA Method	Result	Ousi	XIO.	Units	MDL	POL	Chirica	Analysii
Alkalinity as CaCO3	SM2320B - Titration							***************************************	***************************************
Bicarbonate as		135			mg/L	2	20	01/23/07 0:00	cas
CaCO3									
Carbonate as CaCO			U		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO	3		U		mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity		135			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance									
Cation-Anion Balance	•	-0.5			%			02/05/07 0:00	calc
Sum of Anions		40.6			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		40.2			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	139		*	mg/L	2	10	01/19/07 16:01	nps
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/31/07 14:21	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.45			mg/L	0.02	0.1	01/17/07 22:00	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2760			mg/L	10	20	01/15/07 12:54	lcp
Sulfate	SM4500 SO4-D	1620			mg/L	10	50	01/13/07 13:51	seb
TDS (calculated)	Calculation	2590			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.07						02/05/07 0:00	calc

Arizona license number: AZ0102

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Report Heade	r Explanations		6.12
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 L	imit. Allows fo	or instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the	e manufacturer	r's certificate of analysis
PQL	Practical Quantitation Limit, typically 5 times the MDL.		· .
QC	True Value of the Control Sample or the amount added to	to the Spike	
Rec .	Amount of the true value or spike added recovered, in %	(except for Lo	CSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplica	ate QC Types	
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)		
Sample	Value of the Sample of interest		
a Sample	ypes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB -	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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
P. D. C.	ype Explanations	nol contominat	tion in the prep method or golibration propedure
Blanks Control Co			tion in the prep method or calibration procedure.
Control Sa Duplicates		_	
•	rtified Matrix Determines sample matrix inter		
Standard	Verifies the validity of the calibr		y.
	-	anorn.	
A CZZ COURT HER	s (Qual)		
В	Analyte concentration detected at a value between MDL	and PQL.	
Н	Analysis exceeded method hold time. pH is a field test	with an immed	liate hold time.
R	Poor spike recovery accepted because the other spike i	n the set fell w	vithin the given limits.
Т	High Relative Percent Difference (RPD) accepted becau	ise sample coi	ncentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the indicate		
V	High blank data accepted because sample concentration	n is 10 times h	nigher than blank concentration
W	Poor recovery for Silver quality control is accepted beca	use Silver ofte	en precipitates with Chloride.
X	Quality control sample is out of control.		
Z	Poor spike recovery is accepted because sample conce	ntration is four	r times greater than spike concentration.
Rethor Rater	ences		
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of V	Vater and Was	stes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Ir	norganic Subst	tances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of N	Metals in Enviro	onmental Samples - Supplement I, May 1994.
(5)	EPA SW-846. Test Methods for Evaluating Solid Waste	e, Third Edition	with Update III, December 1996.
(6)	Standard Methods for the Examination of Water and Wa	stewater, 19th	edition, 1995.
Comments			
(1)	QC results calculated from raw data. Results may vary		
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses	•	
(3)	Animal matrices for Inorganic analyses are reported on	an "as receive	d" basis.
DEDINGS 11 O		AND DESCRIPTION OF THE PROPERTY OF THE PROPERT	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Alkalinity as Ca	CO3		SM2320B	- Titration									-
ACZ ID	Тура	Asselyzed	PONSON			Fried	Units	Rec	Lower	Upper	TEO	Limit	Cital
WG219563													
WG219563LCSW2	LCSW	01/23/07 16:57	WC061230-1	820		834.4	mg/L	101.8	80	120			
L60685-05DUP	DUP	01/23/07 19:39			407	408.3	mg/L		00	120	0.3	20	
WG219563LCSW5	LCSW	01/23/07 19:52	WC061230-1	820		841.9	mg/L	102.7	80	120			
L60693-02DUP	DUP	01/23/07 21:23			204	201.8	mg/L				1.1	20	
WG219563LCSW8	LCSW	01/23/07 23:43	WC061230-1	820		846.4	mg/L	103.2	80	120			
Aluminum, diss			M200.7 IC						***************************************				····
ACZ IB	Туре	Analyzed	PCNSC	OC.	Sample	Fourt	Units	Rec	Lower	Upper	RPD	Limit	Charles
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	2		2.006	mg/L	100.3	95	105			
WG219198ICB	ICB	01/12/07 20:45				.038	mg/L		-0.09	0.09			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	1		1.137	mg/L	113.7	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	1 .	.22	1.285	mg/L	106.5	85	115			
L60630-01ASD	ASD.	01/12/07 21:22	11070102-4	. 1	.22	1.344	mg/L	112.4	85	115	4.49	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	1	U	1.104	mg/L	110.4	85	115			
L60685-04ASD	ASD	01/12/07 22:11	II070102-4	1	U	1.086	mg/L	108.6	85	115	1.64	20	
Antimony, disso	-		M200.8 IC	P-MS									
AGZ ID	Type	Analyzed	PONSON	DIC	Simple	Found	Units	Rec	Love	Univer	RPD	Limit	Ottal
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.02		.02057	mg/L	102.9	90	110			
WG219207ICB	ICB	01/13/07 5:08				.00049	mg/L		-0.0012	0.0012			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.00625		.00622	mg/L	99.5	85	115			
L60685-01AS	AS	01/13/07 5:27	MS061218-3	.00625	U	.00572	mg/L	91.5	70	130			
L60685-01ASD	ASD	01/13/07 5:33	MS061218-3	.00625	U	.00572	mg/L	91.5	70	130	0	20	
Arsenic, dissolv			M200.8 IC	P-MS									
ACZ ID	Type	Agenyzes	FENSION	cje	Sample	Found	Units	Rec	Lesver	Lipper	PP	ŦŦ.	Chail
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.05204	mg/L	104.1	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0015	0.0015			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.05006	mg/L	100.1	85	115			
L60685-01AS	AS	01/13/07 5:27	MS061218-3	.05	.0073	.05941	mg/L	104.2	70	130			
L60685-01ASD	ASD	01/13/07 5:33	MŞ061218-3	.05	.0073	.06057	mg/L	106.5	70	130	1.93	20	
Barium, dissolve			M200.7 IC	:P									
ACZ ID	Type	Analyzed	PONECH	OC.	Sample	Found	Units	Rese	Control	Upper	RPD	1111	Chai
WG219275													
WG219275ICV	ICV	01/16/07 11:48	11061230-1	2		2.0374	mg/L	101.9	95	105			
WG219275ICB	ICB	01/16/07 11:52				U	mg/L		-0.009	0.009			
WG219261											-		
WG219261LFB	LFB	01/16/07 14:13	11070102-4	.5		.4705	mg/L	94.1	85	115			
L60685-01AS	AS	01/16/07 14:20	11070102-4	.5	.046	.5361	mg/L	98	85	115			
L60685-01ASD	ASD	01/16/07 14:24	11070102-4	.5	.046	.5362	mg/L	98	85	115	0.02	20	

Phelps Dodge Sierrita

Project ID:

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Beryllium, diss	olved		M200.8 I	CP-MS									
ACZ [D	Турге	Analyzed	PENSON		Sample	Found	Units		Lower	Upper	RPD	Limit	Qual
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.04979	mg/L	99.6	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04923	mg/L	98.5	85	115			
L60685-01AS	AS	01/13/07 5:27	MS061218-3	.05	U	.04092	mg/L	81.8	70	130			
L60685-01ASD	ASD	01/13/07 5:33	MS061218-3	.05	U	.03989	mg/L	79.8	70	130	2.55	20	
Cadmium, diss	olved		M200.8 I	CP-MS									
ACZ ID	Type	Analyzai	PENISON	OK.	Symme	Found			Love	Baner	1,1979		
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.04964	mg/L	99.3	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04904	mg/L	98.1	85	115			
L60685-01AS	AS	01/13/07 5:27	MS061218-3	.05	U ,	.04516	mg/L	90.3	70	130			
L60685-01ASD	ASD	01/13/07 5:33	M\$061218-3	.05	U	.04558	mg/L	91.2	70	130	0.93	20	
Calcium, disso	lved		M200.7 I	CP									arritis de retendo ant de charle ann
4.7	Type	Attelyzed		0).		Follow	Brits	Rec	Love	Buper	THE S	1111	Cita
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	100		100.99	mg/L	101	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.6	0.6			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	67.95918		73.32	.mg/L	107.9	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	67.95918	46.4	118.8	mg/L	106.5	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	67.95918	46.4	120.9	mg/L	109.6	85	115	1.75	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	67.95918	823	870.56	mg/L	70	85	115			МЗ
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	67.95918	823	873.74	mg/L	74.7	85 .	115	0.36	20	M3
WG219275													
WG219275ICV	ICV	01/16/07 11:48	11061230-1	100		97.47	mg/L	97.5	95	105			
WG219275ICB	ICB	01/16/07 11:52				U	mg/L		-0.6	0.6			
WG219261		,											
WG219261LFB	LFB	01/16/07 14:13	11070102-4	67.95918		67.72	mg/L	99.6	85	115			
L60685-01AS	AS	.01/16/07 14:20	11070102-4	67.95918	472	524.16	mg/L	76.8	85	115			M3
L60685-01ASD	ASD	01/16/07 14:24	11070102-4	67.95918	472	531.16	mg/L	87.1	85	115	1.33	20	
WG219782													
WG219782ICV	ICV	01/30/07 20:01	11070116-1	100		99.14	mg/L	99.1	95	105			
WG219782ICB	ICB	01/30/07 20:05				U	mg/L		-0.6	0.6			
WG219782LFB	LFB	01/30/07 20:21	11070119-5	67.95918		68.87	mg/L	101.3	85	115			
L60685-05AS	AS	01/30/07 20:29	11070119-5	67.95918	129	199.88	mg/L	104.3	85	115			
L60685-05ASD	ASD	01/30/07 20:33	11070119-5	67.95918	129	195.7	mg/L	98.1	85	115	2.11	20	

Phelps Dodge Sierrita

Project ID:

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Chloride			M325.2	- Colorimetri	ic .									
ACZ ID	Туре	Analyzed	PONISON		Sample	Found	Units	Rec	Lovier	Upper	RPD	Limit	Citi	
WG219439														
WG219439ICV	ICV	01/19/07 14:15	WI061113-3	55		56.3	mg/L	102.4	90	110				
WG219439ICB	ICB	01/19/07 14:16				U	mg/L		-3	3				
WG219439LFB1	LFB	01/19/07 14:17	WI061127-1	30		30.6	mg/L	102	90	110				
L60630-01DUP	DUP	01/19/07 14:48			U	U	mg/L				0	20		RA
WG219439LFB2	LFB	01/19/07 14:58	WI061127-1	30		31.3	mg/L	104.3	90	110				
L60685-07AS	AS	01/19/07 15:58	WI061127-1	60	135	184.3	mg/L	82.2	90	110				M2
L60685-08DUP	DUP	01/19/07 15:59			131	132.6	mg/L				1.2	20		
L60592-04AS	AS	01/19/07 16:07	WI061127-1	60	93	151	mg/L	96.7	90	110				
Chromium, diss	olved		M200.7	ICP										-
ACZ ID	Type	Analyzed	Pro Sign	9,6	Sample	Fernie	Units		Lower	Lipper	RPD	Limit	Ĉ is	
WG219198														
WG219198ICV	ICV	01/12/07 20:41	II061230-1	2		1.989	mg/L	99.5	95	105				
WG219198ICB	ICB	01/12/07 20:45				U ·	mg/L		-0.03	0.03				
WG219198LFB	LFB	01/12/07 21:01	11070102-4	.5		.491	mg/L	98.2	85	115				
L60630-01AS	AS	01/12/07 21:18	11070102-4	.5	U	.53	mg/L	106	85	115				
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	.5	U	.523	mg/L	104.6	85	115	1.33	20		
L60685-04AS	AS	01/12/07 22:07	11070102-4	.5	U	.477	mg/L	95.4	85	115				
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	.5	U	.489	mg/L	97.8	85	115	2.48	20		
Cobalt, dissolve	ed		M200.7	ICP								************		
AGZIB	ype	Analyzed	PoNSO	6,6	Sample	Found	Units	Rec	o e e	Stepen		1.1111		
WG219198														
WG219198ICV	ICV	01/12/07 20:41	11061230-1	2		1.956	mg/L	97.8	95	105				
WG219198ICB	ICB	01/12/07 20:45				· U	mg/L		-0.03	0.03				
WG219198LFB	LFB	01/12/07 21:01	11070102-4	.5		.488	mg/L	97.6	85	115				
L60630-01AS	AS	01/12/07 21:18	11070102-4	.5	U	.522	mg/L	104.4	85	115				
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	.5	U	.51	mg/L	102	85	115	2.33	20		
L60685-04AS	AS	01/12/07 22:07	11070102-4	.5	U	.477	mg/L	95.4	85	115				
L60685-04ASD	ASD	01/12/07 22:11	II070102-4	.5	U	.484	mg/L	96.8	85	115	1.46	20		
Conductivity @:	25C		M120.1 -	- Meter										
ACZ ID	Type	Analyzed	PENISCN		Sample	Folia		Rec	Lower	Upper	7(2)3	Limit		
WG219563														
WG219563PBW1	PBW	01/23/07 16:45				2	ımhos/cm		-10	10				
WG219563LCSW1	LCSW	01/23/07 16:46	PCN25346	1408.8		1439	ımhos/cn	102.1	80	120				
L60685-05DUP	DUP	01/23/07 19:39			1640	1652	ımhos/cn			•	0.7	20		
WG219563PBW2	PBW	01/23/07 19:40				2	ımhos/crr		-10	10				
WG219563LCSW4	LCSW	01/23/07 19:42	PCN25346	1408.8		1417	ımhos/cn	100.6	80	120				
L60693-02DUP	DUP	01/23/07 21:23			381	380	ımhos/crr				0.3	20		
WG219563LCSW7	LCSW	01/23/07 23:32	PCN25346	1408.8		1421	ımhos/cn	100.9	80	120				

Imerganie CC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Copper, dissolv	ved		M200.7 IC	;P		executive de describer							
A67 B		. 177	Floresca			F	Units	Per	Lector			270	
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	2		1.971	mg/L	98.6	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.03	0.03			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	.5		.497	mg/L	99.4	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	.5	U	.522	mg/L	104.4	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	.5	U	.516	mg/L	103.2	85	115	1.16	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	.5	U	.513	mg/L	102.6	85	115			
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	.5	U	.517	mg/L	103.4	85	115	0.78	20	
Cyanide, total			M335.4 -	Colorimetri	ic w/ dist	illation	······································						
AC7 ID	100	Applicati	15.0	#]0				Rec		1711.2			0.1651
WG219473													
WG219473ICV	ICV	01/20/07 20:52	WI070111-3	.3		.2949	mg/L	98.3	90	110			
WG219473ICB	ICB	01/20/07 20:53				U	mg/L		-0.015	0.015			
WG219389LRB	LRB	01/20/07 20:54				U	mg/L		-0.015	0.015			
WG219389LFB	LFB	01/20/07 20:55	WI070111-7	.2		.1908	mg/L	95.4	90	110			
L60685-01LFM	LFM	01/20/07 20:58	WI070111-7	.2	U	.2214	mg/L	110.7	90	110			M1
L60685-02DUP	DUP	01/20/07 20:59			U	U	mg/L				0	20	RA
WG219550													
WG219550ICV	ICV	01/23/07 14:03	WI070111-3	.3		.2873	mg/L	95.8	90	110			
WG219550ICB	ICB	01/23/07 14:04				U	mg/L		-0.015	0.015			
WG219488LRB	LRB	01/23/07 14:05				U	mg/L		-0.015	0.015			
WG219488LFB	LFB	01/23/07 14:06	WI070111-7	.2		.1811	mg/L	90.6	90	110			
L60726-01LFM	LFM	01/23/07 14:09	WI070111-7	.2	U	.2072	mg/L	103.6	90	110			
L60685-11DUP	DUP	01/23/07 14:31			U	U	mg/L				0	20	RA
Fluoride			SM4500F	-C		**************************************							
40710		Analyzed	PONSO	ΟC	Solition	Francis				Ditte			
WG219692													
WG219692ICV1	ICV	01/26/07 11:37	WC070126-1	1.996		2.08	mg/L	104.2	95	105			
WG219692ICB1	ICB	01/26/07 11:43				U	mg/L		-0.3	0.3			
WG219692LFB1	LFB	01/26/07 11:50	WC061021-1	4.99902		5.04	mg/L	100.8	90	110			
WG219692LFB2	LFB	01/26/07 14:47	WC061021-1	4.99902		4.82	mg/L	96.4	90	. 110			
L60685-05AS	AS	01/26/07 16:10	WC061021-1	4.99902	.4	4.88	mg/L	89.6	85	115			
L60685-05DUP	DUP	01/26/07 16:28			.4	.43	mg/L				7.2	20	RA
WG219819													
WG219819ICV	ICV	01/31/07 12:46	WC070126-1	1.996		2.05	mg/L	102.7	95	105			
WG219819ICB	ICB	01/31/07 12:53				U	mg/L		-0.3	0.3			
WG219819LFB1	LFB	01/31/07 12:59	WC061021-1	4.99902		5.1	mg/L	102	90	110			
L60696-01AS	AS	01/31/07 14:47	WC061021-1	4.99902	.4	5.12	mg/L	94.4	85	115			
L60696-01DUP	DUP	01/31/07 14:50			.4	.44	mg/L				9.5	20	RA
WG219819LFB2	LFB	01/31/07 14:55	WC061021-1	4.99902		5.07	mg/L	101.4	90	110			

2773 Downhill Drive

Inorganic QC Silmmary

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID: L60685

Iron, dissolved			M200.7 I	CP					÷				-
ACZ (D	Type	Arrellyzed	PONESCA	8.0	Sample	Feand	Units	Rec	Lower	Upper	7773	Link	Cual
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	-2		1.987	mg/L	99.4	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.06	0.06			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	1		1.018	mg/L	101.8	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	11	U	1.048	mg/L	104.8	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	1	U	1.04	mg/L	104	85	115	0.77	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	1	.26	1.224	mg/L	96.4	85	115			
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	1	.26	1.251	mg/L	99.1	85	115	2.18	20	
Lead, dissolved			M200.8 I									NO CONTRACTOR CONTRACT	
ACZ ID	Type	Analyzed		G (c	Sample	Feshel	Units	Flore	Louiser	Upper	RPD	Limit	Charles
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.04997	mg/L	99.9	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04697	mg/L	93.9	85	115			
L60685-01AS	AS .	01/13/07 5:27	MS061218-3	.05	U	.04604	mg/L	92.1	.70	130			
L60685-01ASD	ASD	01/13/07 5:33	MS061218-3	.05	U	.04627	mg/L	92.5	70	130	0.5	20	
Magnesium, diss	solved		M200.7 I	CP									
A(e/Z)jb	Туре	Anclyzed	PENISON	D)C	Samo	FOLEST	Units	Kere	Lower	Upper	FIELD		6.1751
WG219198				*1.4									
WG219198ICV	ICV	01/12/07 20:41	11061230-1	100		97.96	mg/L	98	95	105			
WG219198ICB	ICB	01/1/2/07 20:45		*		U	mg/L		-0.6	0.6			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	54.98614		57.84	mg/L	105.2	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	, 54.98614	U	59.11	mg/L	107.5	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	54.98614	U	60.56	mg/L	110.1	85	115	2.42	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	54.98614	371	418.23	mg/L	85.9	85	115			•
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	54.98614	371	420.97	mg/L	90.9	85	115	0.65	20	
WG219782													
WG219782ICV	ICV	01/30/07 20:01	11070116-1	100		96.91	mg/L	96.9	95	105			
WG219782ICB	ICB	01/30/07 20:05				U	mg/L		-0.6	0.6			
WG219782LFB	LFB	01/30/07 20:21	11070119-5	54.98614		54.84	mg/L	99.7	85	115			
L60685-05AS L60685-05ASD	AS ASD	01/30/07 20:29 01/30/07 20:33	II070119-5 II070119-5	54.98614 54.98614	59.7 59.7	118.25 115.61	mg/L mg/L	106.5 101.7	85 85	115	2.06	20	
		0 1700707 20.00				110.01	mg/L	101.7		115	2.26	20	
Manganese, diss	sorvea	Analyzed	M200.7 I	GP GB	Same	Found	Units	Rec	Lower	Umass		Limit	
									-				Gual
WG219198	10) 1	0.1110/0											
WG219198ICV	ICV	01/12/07 20:41	11061230-1	2		1.9797	.mg/L	99	95	105			
WG219198ICB	ICB	01/12/07 20:45	11070400 4	-		U	mg/L	400 =	-0.015	0.015			
WG219198LFB L60630-01AS	LFB	01/12/07 21:01	11070102-4	.5	1.1	.5037	mg/L	100.7	85	115			
L60630-01ASD	AS ASD	01/12/07 21:18 01/12/07 21:22	11070102-4 11070102-4	.5 .5	U	.5245 .5163	mg/L	104.9	85 95	115	4 F0	20	
L60685-04AS	AS	01/12/07 21:22	11070102-4	.5	.265	.7394	mg/L	103.3 94.9	85 ·	115	1.58	20	
	VED	01/12/07 22:01	11070102-4	.5	.200	.1354	mg/L	34.3	85	115			

ASD

01/12/07 22:11

11070102-4

.5

.265

.7537

mg/L

L60685-04ASD

115 1.92 20

Phelps Dodge Sierrita

Project ID:

OJ00XN

	Michael School (Allocker)		in a produce and the construction for the		en local post in encoder a sector			ini panjani pad Bulindan	igang religion after nation	zemniya i Meirosybytemnie	CONTRACTOR CONTRACTOR	HOLOGRAFICA (COM	ANTONIA PROCESSA STANDANIS O
Mercury, disso			M245.1										
ACZ ID	Type	Annlyzen	FONESTER	0.18	Sample	Faund	Units	Rec	Leader	Uppear	RP0	i in	1
WG219230													
WG219230ICV	ICV	01/16/07 13:27	11061220-1	.00498		.00496	mg/L	99.6	95	105			
WG219230ICB	ICB	01/16/07 13:29				U	mg/L		-0.0002	0.0002			
WG219231													
WG219231LRB	LRB	01/16/07 15:03				U	mg/L		-0.00044	0.00044			
WG219231LFB	LFB	01/16/07 15:05	11070104-3	.002		.00212	mg/L	106	85	115			
L60668-07LFM	LFM	01/16/07 16:02	11070104-3	.002	U	.0021	mg/L	105	85	115			
L60668-07LFMD	LFMD	01/16/07 16:04	11070104-3	.002	U	.00217	mg/L	108.5	85	115	3.28	20	
WG219282													
WG219282LRB	LRB	01/16/07 16:44				U	mg/L		-0.00044	0.00044			
WG219282LFB	LFB	01/16/07 16:47	11070104-3	.002		.00196	mg/L	98	85	115			
L60685-02LFM	LFM	01/16/07 16:51	11070104-3	.002	.0002	.00224	mg/L	102	85	115			
L60685-02LFMD	LFMD	01/16/07 16:53	11070104-3	.002	.0002	.00229	mg/L	104.5	85	115	2.21	20	
Molybdenum, o	dissolve	d	M200.7	ICP									
A GZ-1D	lype	A10197200	Pendon	0.0	Sample	Faird		100	Levis	Space	F(F) 2	Limit	4.10
WG219198							. *						
WG219198ICV	ICV	01/12/07 20:41	11061230-1	2		2.048	mg/L	102.4	95	105			
WG219198ICB	ICB	01/12/07 20:45		,		U	mg/L		-0.03	0.03			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	.5		.529	mg/L	105.8	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	.5	U	.548	mg/L	109.6	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	.5	U	.56	mg/L	112	85	115	2.17	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	.5	U	.53	mg/L	106	85	115			
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	.5	U	.527	mg/L	105.4	. 85	115	0.57	20	
Nickel, dissolv	ed		M200.7	ICP									
A07.10	Туре	Assayzas	PENSON	° OD	Sample	Found	Units	Poor	Losser	Same	0.00		Öltəl
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	- 2		1.972	mg/L	98.6	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.03	0.03			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	.5		.481	mg/L	96.2	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	5	U	.51	mg/L	102	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	.5	U	.507	mg/L	101.4	85	115	0.59	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	.5	U	.473	mg/L	94.6	85	115			
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	.5	U	.482	mg/L	96.4	85	115	1.88	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Mitrato/Mitrita a	c N		MOED O	H2004	200010-								
Nitrate/Nitrite a	S N	Analyzed		- H2SO4 pre	eserved								
			Penison		S 21 11 11 12 12 12 12 12 12 12 12 12 12	Feme	Units -	Fig.	Lower	Upper	7.50	Limit	Chai
WG219363													
WG219363ICV	ICV -	01/17/07 18:29	WI061207-1	2.416		2.385	mg/L	98.7	90	110			
WG219363ICB	ICB	01/17/07 18:31				U	mg/L		-0.06	0.06			
WG219364		•											
WG219364ICV	ICV	01/17/07 21:05	WI061207-1	2.416	,	2.353	mg/L	97.4	90	110			*
WG219364ICB	ICB	01/17/07 21:07				U	mg/L		-0.06	0.06			
WG219364LFB1	LFB	01/17/07 21:08	WI060906-4	2		2.012	mg/L	100.6	90	110			
L60668-02DUP	DUP	01/17/07 21:31			1.66	1.663	mg/L				0.2	20	
WG219364LFB2	LFB	01/17/07 21:46	WI060906-4	2		1.994	mg/L	99.7	90	110			
L60668-01AS	AS .	01/17/07 22:07	WI060906-4	10	6.6	17.3	mg/L	107	90	110			
L60685-04AS	AS	01/17/07 22:14	WI060906-4	20	9	30.2	mg/L	106	90	110			
L60685-06DUP	DUP	01/17/07 22:17			10.3	10.29	mg/L				0.1	20	
WG219470													
WG219470ICV	ICV	01/20/07 18:12	WI061207-1	2.416		2.346	mg/L	97.1	90	11 0			
WG219470ICB	ICB	01/20/07 18:13				U	mg/L		-0.06	0.06			
WG219470LFB1	LFB	01/20/07 18:14	WI060906-4	2		1.87	mg/L	93.5	90	110			
L60592-04AS	AS	01/20/07 18:17	WI060906-4	2	.02	1.898	mg/L	93.9	90	11 0			
L60685-05DUP	DUP	01/20/07 18:19			.05	.059	mg/L				16.5	20	RA
WG219470LFB2	LFB	01/20/07 18:52	WI060906-4	2		1.805	mg/L	90.3	90	110			
pH (lab)			M150.1 ·	- Electromet	ric							*****	
ACZ ID	Type	Analyzed	PONISON	0.0	Sample	Found	Units	Rec	Lower	Lioper	11210	Emit	Oper
WG210563						•							
WG219563	1.00141	04100/07 47 00	DONOE 4 40										
WG219563LCSW3	LCSW	01/23/07 17:00	PCN25442	6	٠	6.1	units 	101.7	90	110			
WG219563LCSW3 L60685-05DUP	DUP	01/23/07 19:39			8	8.08	units				1	20	
WG219563LCSW3 L60685-05DUP WG219563LCSW6	DUP LCSW	01/23/07 19:39 01/23/07 19:55	PCN25442 PCN25442	6		8.08 6.14	units units	101.7 102.3	90 90	110 110			
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP	DUP LCSW DUP	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23	PCN25442	6	8 8.5	8.08 6.14 8.45	units units units	102.3	90	110	1 0.6	20	
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9	DUP LCSW DUP LCSW	01/23/07 19:39 01/23/07 19:55	PCN25442 PCN25442	6		8.08 6.14	units units						
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9	DUP LCSW DUP LCSW	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46	PCN25442 PCN25442 M200.7	6 6 ICP	8.5	8.08 6.14 8.45 6.14	units units units units	102.3	90	110 110	0.6	20	
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9	DUP LCSW DUP LCSW	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23	PCN25442 PCN25442	6		8.08 6.14 8.45	units units units	102.3	90	110	0.6		Qual
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9	DUP LCSW DUP LCSW	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46	PCN25442 PCN25442 M200.7	6 6 ICP	8.5	8.08 6.14 8.45 6.14	units units units units	102.3	90	110 110	0.6	20	Qual
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss	DUP LCSW DUP LCSW	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46	PCN25442 PCN25442 M200.7	6 6 ICP	8.5	8.08 6.14 8.45 6.14	units units units units	102.3	90 90 Lower	110 110 Upper	0.6	20	Oual
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss AGZ ID WG219198	DUP LCSW DUP LCSW solved	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed	PCN25442 PCN25442 M200.7 PCN/SCN	6 6 ICP	8.5	8.08 6.14 8.45 6.14	units units units units	102.3 102.3 Rec	90	110 110	0.6	20	C itral
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198 WG219198ICV	DUP LCSW DUP LCSW Solved	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed	PCN25442 PCN25442 M200.7 PCN/SCN	6 6 ICP	8.5	8.08 6.14 8.45 6.14 Found	units units units units units units	102.3 102.3 Rec	90 90 Lower	110 110 Upper	0.6	20	Chual
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198 WG219198ICV WG219198ICB	DUP LCSW DUP LCSW Solved Type	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1	6 6 CCP QC 20	8.5	8.08 6.14 8.45 6.14 Found	units units units units Units mg/L mg/L	102.3 102.3 Rec	90 90 1 ower 95 -0.9	110 110 Upper 105 0.9	0.6	20	Gual
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198 WG219198ICV WG219198ICB WG219198LFB	DUP LCSW DUP LCSW Solved Type ICV ICB LFB	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4	6 6 CCP QC 20 99.51014	8.5 Sample	8.08 6.14 8.45 6.14 Found 20.34 U	units units units units Units Units mg/L mg/L mg/L	102.3 102.3 Rec 101.7	90 90 1 ower 95 -0.9 85	110 110 110 1105 0.9 115	0.6	20	Cual
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198 WG219198ICV WG219198ICB WG219198LFB L60630-01AS	DUP LCSW DUP LCSW SOIVEd Type: ICV ICB LFB AS	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01 01/12/07 21:18	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4 II070102-4	6 6 CCP QC 20 99.51014 99.51014	8.5 Sample	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9	units units units units Units Units mg/L mg/L mg/L mg/L	102.3 102.3 Rec 101.7 106.6 110.6	90 90 1 ower 95 -0.9 85 85	110 110 110 1105 0.9 115 115	0.6	20 Limit	Oual M1
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198 WG219198ICV WG219198ICB WG219198LFB L60630-01AS L60630-01ASD	DUP LCSW DUP LCSW Solved Type ICV ICB LFB AS ASD	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01 01/12/07 21:18 01/12/07 21:22	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4 II070102-4 II070102-4	6 6 1CP QC 20 99.51014 99.51014	8.5 Sample	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9 113.79	units units units units Units Units mg/L mg/L mg/L mg/L mg/L	102.3 102.3 Rec 101.7 106.6 110.6 113.5	90 90 Lower 95 -0.9 85 85 85	110 110 110 105 0.9 115 115	0.6	20 Limit	
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss AGZ ID WG219198 WG219198ICV WG219198ICB WG219198LFB L60630-01AS L60630-01ASD L60685-04ASD	DUP LCSW DUP LCSW SOIVEd Type ICV ICB LFB AS ASD AS ASD	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01 01/12/07 21:18 01/12/07 21:22 01/12/07 22:07 01/12/07 22:11	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4	6 6 CCP 20 99.51014 99.51014 99.51014 99.51014	8.5 Sample .8 .8 7.7 7.7	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9 113.79 126.89	units units units Units Units Mg/L mg/L mg/L mg/L mg/L mg/L mg/L	102.3 102.3 Rec 101.7 106.6 110.6 113.5 119.8	90 90 Lower 95 -0.9 85 85 85 85	110 110 110 105 0.9 115 115 115	0.6 RPD	20 Limit	M1
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198 WG219198ICV WG219198ICB WG219198LFB L60630-01AS L60630-01ASD L60685-04AS	DUP LCSW DUP LCSW SOIVEd Type ICV ICB LFB AS ASD AS ASD	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:18 01/12/07 21:22 01/12/07 22:07 01/12/07 22:11 S) @180C	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4	6 6 1CP QC 20 99.51014 99.51014 99.51014	8.5 Sample .8 .8 7.7 7.7	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9 113.79 126.89 128.33	units units units units Units Units Units Units	102.3 102.3 102.3 Rec 101.7 106.6 110.6 113.5 119.8 121.2	90 90 1 ower 95 -0.9 85 85 85 85 85	110 110 110 105 0.9 115 115 115 115	0.6 RPD 2.57	20 Limit 20 20 20	M1 M1
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss AGZ ID WG219198 WG219198ICV WG219198ICB WG219198LFB L60630-01AS L60630-01ASD L60685-04ASD Residue, Filtera	DUP LCSW DUP LCSW SOIVEd Type ICV ICB LFB AS ASD AS ASD	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01 01/12/07 21:18 01/12/07 21:22 01/12/07 22:07 01/12/07 22:11	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4	6 6 CP 20 99.51014 99.51014 99.51014 99.51014 99.51014	8.5 Sample .8 .8 7.7 7.7	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9 113.79 126.89 128.33	units units units units Units Units Units Units	102.3 102.3 Rec 101.7 106.6 110.6 113.5 119.8	90 90 Lower 95 -0.9 85 85 85 85	110 110 110 105 0.9 115 115 115	0.6 RPD	20 Limit 20 20 20	M1
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198ICV WG219198ICB WG219198LFB L60630-01AS L60630-01ASD L60685-04AS L60685-04ASD Residue, Filtera ACZ ID	DUP LCSW DUP LCSW SOIVEd Type ICV ICB LFB AS ASD AS ASD ble (TDS	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01 01/12/07 21:18 01/12/07 21:22 01/12/07 22:07 01/12/07 22:11 S) @180C Analyzed	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4	6 6 CP 20 99.51014 99.51014 99.51014 99.51014 99.51014	8.5 Sample .8 .8 7.7 7.7	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9 113.79 126.89 128.33	units units units units Units Units Units Units	102.3 102.3 102.3 Rec 101.7 106.6 110.6 113.5 119.8 121.2	90 90 1 ower 95 -0.9 85 85 85 85 85	110 110 110 105 0.9 115 115 115 115	0.6 RPD 2.57	20 Limit 20 20 20	M1 M1
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198ICV WG219198ICV WG219198ICB WG219198LFB L60630-01AS L60630-01ASD L60685-04AS L60685-04ASD Residue, Filtera ACZ ID WG219243 WG219243PBW	DUP LCSW DUP LCSW Solved Type ICV ICB LFB AS ASD AS ASD DIe (TDS Type	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01 01/12/07 21:18 01/12/07 21:22 01/12/07 22:07 01/12/07 22:11 S) @180C Analyzed	PCN25442 PCN25442 M200.7 II PCN/SCN II061230-1 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4 PCN/SCN	6 6 CP QC 20 99.51014 99.51014 99.51014 99.51014	8.5 Sample .8 .8 7.7 7.7	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9 113.79 126.89 128.33	units units units units Units Units Units Units	102.3 102.3 102.3 Rec 101.7 106.6 110.6 113.5 119.8 121.2	90 90 1 ower 95 -0.9 85 85 85 85 85	110 110 110 105 0.9 115 115 115 115	0.6 RPD 2.57	20 Limit 20 20 20	M1 M1
WG219563LCSW3 L60685-05DUP WG219563LCSW6 L60693-02DUP WG219563LCSW9 Potassium, diss ACZ ID WG219198ICV WG219198ICV WG219198ICB WG219198LFB L60630-01AS L60630-01ASD L60685-04AS L60685-04ASD Residue, Filtera ACZ ID WG219243	DUP LCSW DUP LCSW SOIVEd Type ICV ICB LFB AS ASD AS ASD ble (TDS	01/23/07 19:39 01/23/07 19:55 01/23/07 21:23 01/23/07 23:46 Analyzed 01/12/07 20:41 01/12/07 20:45 01/12/07 21:01 01/12/07 21:18 01/12/07 21:22 01/12/07 22:07 01/12/07 22:11 S) @180C Analyzed	PCN25442 PCN25442 M200.7 I PCN/SCN II061230-1 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4 II070102-4	6 6 CP 20 99.51014 99.51014 99.51014 99.51014 99.51014	8.5 Sample .8 .8 7.7 7.7	8.08 6.14 8.45 6.14 Found 20.34 U 106.12 110.9 113.79 126.89 128.33	units units units units Units Units Mg/L mg/L mg/L mg/L mg/L mg/L Units	102.3 102.3 102.3 Rec 101.7 106.6 110.6 113.5 119.8 121.2	90 90 Lower 95 -0.9 85 85 85 85 85	110 110 110 105 0.9 115 115 115 115 115	0.6 RPD 2.57	20 Limit 20 20 20	M1 M1

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Project ID:

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Selenium, disso	olved	-	M200.8 I	CP-MS									
ACZ ID	Type	Assalyzed	PONISON	ejc	Sample	Found	Units	Tec	Lower	Univer	RPD	Einelt	Quei
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.05481	mg/L	109.6	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.05089	mg/L	101.8	85	115			
L60685-01AS	AS	01/13/07 5:27	MS061218-3	.05	.0021	.05898	mg/L	113.8	70	130			*
L60685-01ASD	ASD	01/13/07 5:33	MS061218-3	.05	.0021	.05876	mg/L	113.3	70	130	0.37	20	
Sodium, dissolv			M200.7 I	CP									
ACZ ID	Type	Analyzed	PONISON	OJ8	Samule	Found	Units	Rec	Lower	Upper	RPD	Limit	Class
WG219198													
WG219198ICV	ICV	01/12/07 20:41	11061230-1	100		100.17	mg/L	100.2	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.9	0.9			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	99.90786		105.46	mg/L	105.6	85	115			
L60630-01AS	AS	. 01/12/07 21:18	11070102-4	99.90786	4	112.22	mg/L	108.3	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	99.90786	4	115.48	mg/L	111.6	85	115	2.86	20-	
L60685-04AS	AS	01/12/07 22:07	11070102-4	99.90786	506	588.33	mġ/L	82.4	85	115			M3
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	99.90786	506	595.3	mg/L	89.4	85	115	1.18	20	
WG219275													
WG219275ICV	ICV	01/16/07 11:48	11061230-1	100		101.37	mg/L	101.4	95	105			
WG219275ICB	ICB	01/16/07 11:52				U	mg/L		-0.9	0.9			
WG219261													
WG219261LFB	LFB	01/16/07 14:13	11070102-4	99.90786		102.22	mg/L	102.3	85	115			
L60685-01AS	AS	01/16/07 14:20	11070102-4	99.90786	105	205.36	mg/L	100.5	85	115			
L60685-01ASD	ASD	01/16/07 14:24	11070102-4	99.90786	105	207.67	mg/L	102.8	85	115	1.12	20	
WG219782													
WG219782ICV	ICV	01/30/07 20:01	11070116-1	100		99.82	mg/L	99.8	95	105			
WG219782ICB	ICB	01/30/07 20:05				U	mg/L		-0.9	0.9			
WG219782LFB	LFB	01/30/07 20:21	11070119-5	99.90786		100.89	mg/L	101	85	115			
L60685-05AS	AS	01/30/07 20:29	11070119-5	99.90786	193	297.59	mg/L	104.7	85	115			
L60685-05ASD	ASD	01/30/07 20:33	II070119-5	99.90786	193	293.95	mg/L	101	85	115	1.23	20	
Sulfate			SM4500	SO4-D									
A07 (B	Typ.s	A resysted	500 500	0.0	Sample	Fernice	Sugar		Level	8,016,01	RPD	Lant	Car
WG219214													
WG219214PBW	PBW	.01/13/07 13:00				U	mg/L		-30	30			
WG219214LCSW	LCSW	01/13/07 13:02	WC061207-2	100		91	mg/L	91	80	120			
L60673-05DUP	DUP	01/13/07 13:14			40	40	mg/L	•		720	0	20	RA
L60694-04DUP	DUP	01/13/07 14:05			1700	1804	mg/L				5.9	20	
WG219767													
WG219767PBW	PBW	01/29/07 13:26				U	mg/L		-30	30			
WG219767LCSW	LCSW	01/29/07 13:29	WC061207-2	100		92	mg/L	92	80	120			
L60821-01DUP	DUP	01/29/07 14:02			20	17	mg/L	-			16.2	20	RA

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Thallium, disso	lved		M200.8 IC	P-MS									
ACZ TD	Type	Analyzed	PONISON	QC	Sample	Found	Units		Lower	Upper	77715	Limit	Oual
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.056		.05256	mg/L	93.9	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04679	mg/L	93.6	85	115			
L60685-01AS	AS	01/13/07 5:27	MS061218-3	.05	U	.04656	mg/L	93.1	70	130			
L60685-01ASD	ASD	01/13/07 5:33	MS061218-3	.05	U	.04714	mg/L	94.3	70	130	1.24	20	
Zinc, dissolved			M200.7 IC	P				***************************************					
ACZID	Туре	Anatyzan	Policy	O.C.	ample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG219198		•											
WG219198ICV	ICV	01/12/07 20:41	11061230-1	2		1.971	mg/L	98.6	95	105			
WG219198ICB	ICB	01/12/07 20:45				U	mg/L		-0.03	0.03			
WG219198LFB	LFB	01/12/07 21:01	11070102-4	5		.531	mg/L	106.2	85	115			
L60630-01AS	AS	01/12/07 21:18	11070102-4	.5	U	.544	mg/L	108.8	85	115			
L60630-01ASD	ASD	01/12/07 21:22	11070102-4	5	U	.561	mg/L	112.2	85	115	3.08	20	
L60685-04AS	AS	01/12/07 22:07	11070102-4	.5	.24	.745	mg/L	101	85	115			
L60685-04ASD	ASD	01/12/07 22:11	11070102-4	.5	.24	.77	mg/L	106	85	115	3.3	20	

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	Archaean	PARAMETER	METHOD	CEAL.	DESCRIPTION
L60685-01	WG219439	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA .	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219214	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-02	WG219439	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219214	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-03	WG219439	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219214	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-04	WG219261	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219198	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219439	Chloride	M325.2 - Colorimetric	RA .:	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
* 4	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	· M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219243	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	ZO	TDS concentration is based on a final residue greater than 200 mg.
	WG219214	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

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	ave)Recolum	PARAMETER	METHOD	e) IA	DESCRIPTION
L60685-05	WG219198	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample
200000					recovery was acceptable.
	WG219439	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
•	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219470	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219767	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-06	WG219198	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	·	Sodium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219439	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-07	WG219198	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Sodium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219439	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

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Phelps Dodge Sierrita

	e de la gradia	PARAMETER	Markes		DESCRIPTION
L60685-08	WG219198	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	• M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Sodium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219439	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA .	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-09	WG219198	Calcium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	ı	Sodium, dissolved	M200.7 ICP	M3	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219439	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-10	WG219198	Calcium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
		Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
		Sodium, dissolved	M200.7 ICP	МЗ	The accuracy of the spike recovery does not apply because analyte concentration in the sample is disproportionate to the spike level. The recovery of the method control sample was acceptable.
	WG219439	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	
	WG219819	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60685-11	WG219550	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60685

No certification qualifiers associated with this analysis

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60685

Date Received:

1/12/2007

Received By:

Date Printed:

1/12/2007

Rossiel Colliferation

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
	-	Χ
Χ		
		Χ
X		
Χ		
X		
Χ		
Χ		
		X
X X		-
Χ		
		X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Confiden

Cooler ld		Temp (°C)	Rad (µR/hr)
1513		4.2	14
:			
	<u> </u>		

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

Model

Sample Resemble

Phelps Dodge Sierrita OJ00XN

ACZ Project ID:

L60685 1/12/2007

Date Received:

Received By:

Sample Container Preservation

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0<2	T >12	N/A	RAD	ID
L60685-01	MH-11	ACCORDING TO THE STREET	Υ		Υ	- Commission of the Commission	Service Control of the Control of th	Acceptance of the Control of the Con		HONOR CHOMESTRATES	***************************************	
L60685-02	MH-12		Y		Y							
L60685-03	MH-19		Y		Y					:		
L60685-04	PZ-16		Υ		Y							
L60685-05	M-14		Y		Y							
L60685-06	M-17		Y		Y							
L60685-07	IW-19	ļ.	Y		Υ							
L60685-08	IW-20		Y		Υ							
L60685-09	DUP011107A		Y		Y							
L60685-10	IW-21		Υ		Y							
L60685-11	TB010307-07									Х		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
. 0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By	•

P.O. Box 527, Green Valley, AZ 85622

ANALYTICAL REQUEST SHEET
Chain of Custody
PO# - OJ00XN

COC Number:

/ of / bade

					Pres	Preservatives	tives						Field Data		
Ė	ļ		# of	A STATE OF THE PARTY OF THE PAR	H ₂ S	NaC	/ W	Unpre	Market Control	! !	e garang garan manananan		 		Analysis
Location Date IIIIe Colli.	ıme	ı			1		, g.,	7	+		Hd	Cond	lemp		no da contra
MH-11 1/11/2007 /5:20 8	15:20		8			-	+	7	5	N	7.33 1	8661	25.0		Ambient Suite
MH-12 1/11/2007 7:45	7:45			00	~	-		7	22	9	92.9	1547	19.2		Ambient Suite
MH-19 1/11/2007 9:33	9:33			∞			-	7	D.	7	7.10	1490	22.8		Ambient Suite
. PZ-16 1/11/2007 9:50		9:50		∞		=	-	7	22	9	6.27	4640	21.4		Ambient Suite
M-14 1/11/2007 10:30		10:30		80	7	_=	ᅱ	7	-CJ	9	6.78	1441	20.2		Ambient Suite
M-17 1/11/2007 11:49		11:49			7			~	ري ا	9	6.88	2720	22.7		Ambient Suite
IW-19	14.20			00		F	=	-7	က	1	7.19 1	1805	1/92		Ambient Suite
IW-20 14:15	14:15			∞	_	=		7	જ	7,	23 2	7,23 2360 26.4	26.4		Ambient Suite
DUP011107A 1/11/2007	1/11/2007			œ	-	_	-	77	2		\neg				Ambient Suite
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	6									<u> </u>					
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Sample Submitted By: Billy Dorris		Telephone	Telephone No. 520-648-8873		Fax No.
Report Results To: Billy Dorris		Telephone	Telephone No. 520-648-8873		Fax No. 520-648-8608
Samples Submitted on Ice: (Fes) / No		V	-		Laboratory Name and Address:
Surrendered By: 184 18 30 2003	Received By:	22	Date:	(N.11):001	ACZ Laboratory
Surrendered By:	Received By:		Date:	Time:	30400 Downhill Drive
Comments/Special Instructions:	n. (M.). (Jednosti Marija, dje nije nije depompe a. "C. en an "cina), a spirak (P. 1479) (1479)	Mediye mamadadi digir iyo a a calesa a sa	Constitute Constitute and Constitute of the Cons		Steamboat Springs, CO 80487 Phone: 8003345493

Revised Analytical Report

March 12, 2007

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bill Dorris Phelps Dodge Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Project ID: OJ00XN ACZ Project ID: L60694

Bill Dorris:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 12, 2007. This project was assigned to ACZ's project number, L60694. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60694. 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 the requirements of NELAC.

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

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

12/Mar/07

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.





REPAD.01.11.00.01

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Case Narrative

Phelps Dodge Sierrita

March 12, 2007

Project ID: OJ00XN ACZ Project ID: L60694

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 4 ground water samples from Phelps Dodge Sierrita on January 12, 2007. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L60694. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

This project has been revised to include a separate abbreviated list of analytes, per client request.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

REPAD.03.06.05.01

L60694: Page-2 of 20

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-25A

ACZ Sample ID:

L60694-01

Date Sampled:

01/10/07 13:32

Date Received:

01/12/07

Sample Matrix: Ground Water

Field Data									
Farameter	EPA Medinora	Result		1(0)	Units	MDL	PGL	Dorive	
Conductivity (Field)	Field Measurement	344			mS/cm			01/10/07 13:32	bd
pH (Field)	Field Measurement	8.1			units			01/10/07 13:32	bd
Temperature (Field)	Field Measurement	26.0			, C			01/10/07 13:32	bd
Metals Analysis									
Parameter	IBPA Preshou	Sessi.	Sun	KO	Dollas			Basic	
Calcium, dissolved	M200.7 ICP	30.8			mg/L	0.2	1	01/13/07 1:25	msh
Magnesium, dissolved	M200.7 ICP	8.1			mg/L	0.2	1	01/13/07 1:25	msh
Potassium, dissolved	M200.7 ICP	2.9			mg/L	0.3	2	01/15/07 20:30	msh
Sodium, dissolved	M200.7 ICP	38.0		*	mg/L	0.3	2	01/13/07 1:25	msh
Wet Chemistry									
Pratratellare	EPA Method	Result		ΧO	Units	1151		Date	100
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		156			mg/L	2	20	01/23/07 0:00	cas
CaCO3									
Carbonate as CaCO		5	В		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity		161			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	;	4.0			%			02/05/07 0:00	calc
Sum of Anions		3.6			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		3.9			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	8			mg/L	1	5	01/19/07 15:20	nps
Fluoride	SM4500F-C	0.6		*	mg/L	0.1	0.5	01/31/07 14:23	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.04			mg/L	0.02	0.1	01/17/07 22:01	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	230			mg/L	10	20	01/15/07 13:00	lcp
Sulfate	SM4500 SO4-D	10	В		mg/L	10	50	01/13/07 13:53	seb
TDS (calculated)	Calculation	197			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.17						02/05/07 0:00	calc

Arizona license number: AZ0102

L60694: Page 3 of 20

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-25B.

ACZ Sample ID:

L60694-02

Date Sampled:

01/10/07 13:09

Date Received:

01/12/07

Sample Matrix:

Ground Water

Fiel	Ы	Da	t۶
1 10	IU.	νa	LC

Parameter	EPA Method	Res.	ult Qual XQ Units	MDL FQL Date	Analysi
Conductivity (Field)	Field Measurement	144	0 mS/cm	01/10/07 13:09	bd
pH (Field)	Field Measurement	7.5	5 units	01/10/07 13:09	bd
Temperature (Field)	Field Measurement	26.	1 C	01/10/07 13:09	bd

Metals Analysis

Parameter	PPA Melineri		Result	Oliel XO	Units	MIDIL	FOL	Date	nalyst
Calcium, dissolved	M200.7 ICP		533		mg/L	0.2	1	01/13/07 1:29	msh
Magnesium, dissolved	M200.7 ICP	* *	117		mg/L	0.2	1	01/13/07 1:29	msh
Potassium, dissolved	M200.7 ICP		11.6		mg/L	0.3	2	01/15/07 20:34	msh
Sodium, dissolved	M200.7 ICP		101	*	mg/L	0.3	2	01/13/07 1:29	msh

Wet Chemistry

Wet Chemistry								
Parameter	EPA Method	Result	Qual XC	Units	MDL	POL	Draw	Arreity St
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as CaCO3		101		mg/L	2	20	01/23/07 0:00	cas
Carbonate as CaCO	3		U	mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO	3	•	U	mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity		101		mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation							
Cation-Anion Balance	e ·	0.5		%			02/05/07 0:00	calc
Sum of Anions		40.6		meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		41:0		meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	117		mg/L	2	10	01/19/07 16:02	nps
Fluoride	SM4500F-C	0.2	В *	mg/L	0.1	0.5	01/31/07 14:36	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.96		mg/L	0.02	0.1	01/17/07 22:02	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2790		mg/L	10	20	01/15/07 13:02	lcp
Sulfate	SM4500 SO4-D	1680		mg/L	10	50	01/13/07 13:56	seb
TDS (calculated)	Calculation	2620		mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.06		-			02/05/07 0:00	calc

Arizona license number: AZ0102

L60694: Page 4 of 20

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-25C

ACZ Sample ID:

L60694-03

Date Sampled:

01/10/07 12:35

Date Received:

01/12/07

Sample Matrix: Ground Water

Field Data									
Parameter	EPA Method	Rosult	Qual	ΧG	Units	MDL	FOL	Dott	Analysi
Conductivity (Field)	Field Measurement	1361			mS/cm			01/10/07 12:35	ba
pH (Field)	Field Measurement	7.5			units			01/10/07 12:35	bd
Temperature (Field)	Field Measurement	26.3			С			01/10/07 12:35	bd
Metals Analysis									
Parameter	EPA Method	Result	Onal	ΧĐ	Units	MEL	POL	Date	Analysi
Calcium, dissolved	M200.7 ICP	418			mg/L	0.2	1	01/13/07 1:33	msh
Magnesium, dissolved	M200.7 ICP	94.1			mg/L	0.2	1	01/13/07 1:33	msh
Potassium, dissolved	M200.7 ICP	11.7			mg/L	0.3	2	01/15/07 20:46	msh
Sodium, dissolved	M200.7 ICP	98.2		*	mg/L	0.3	2	01/13/07 1:33	msh
Wet Chemistry									
Parentenion	EPA Method	Result	Qual	ΧO	Units	MDL	FOL	Decrea	
Alkalinity as CaCO3	SM2320B - Titration								-000 (000000000000000000000000000000000
Bicarbonate as		99			mg/L	2	20	01/23/07 0:00	cas
CaCO3									
Carbonate as CaCO3	3		U		mg/L	2	20	01/23/07 0:00	cas
Hydroxide as CaCO3	Š		U		mg/L	2	20	01/23/07 0:00	cas
Total Alkalinity		99			mg/L	2	20	01/23/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		2.8			%			02/05/07 0:00	calc
Sum of Anions		31.4			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		33.2			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	112			mg/L	2	10	01/19/07 16:03	nps
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/31/07 14:38	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.74			mg/L	0.02	0.1	01/17/07 22:03	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2210			mg/L	10	20	01/15/07 13:03	lcp
Sulfate	SM4500 SO4-D	1250			mg/L	10	50	01/13/07 13:59	seb
TDS (calculated)	Calculation	2040			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.08						02/05/07 0:00	calc

Arizona license number: AZ0102

L60694: Page 5 of 20

Inorganic Reference

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

l Header	

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 Recovery Limit, in % (except for LCSS, mg/Kg)

MDL Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annual fluctuations.

PCN/SCN A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis

PQL Practical Quantitation Limit, typically 5 times the MDL.

QC True Value of the Control Sample or the amount added to the Spike

Rec Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)

RPD Relative Percent Difference, calculation used for Duplicate QC Types

Upper Upper Recovery Limit, in % (except for LCSS, mg/Kg)

Sample Value of the Sample of interest

old Sample T	ypes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ÇCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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 Type Explanations

Blanks Verifies that there is no or minimal contamination in the prep method or calibration procedure.

Control Samples Verifies the accuracy of the method, including the prep procedure.

Duplicates Verifies the precision of the instrument and/or method.

Spikes/Fortified Matrix Determines sample matrix interferences, if any.

Standard Verifies the validity of the calibration.

ACZ Obaliflers (Obal)

B Analyte concentration detected at a value between MDL and PQL.

H Analysis exceeded method hold time. pH is a field test with an immediate hold time.

U Analyte was analyzed for but not detected at the indicated MDL

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples Supplement I, May 1994.
- (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
- (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Commonts

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (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.

REPIN03.02.07.01

L60694: Page 6 of 20

Phelps Dodge Sierrita

Project ID:

OJ00XN

Alkalinity as Ca			SM2320B										
AGZ (B	Type	Analyzed	PCNISCN		Sample	Faunt	Units	Rec	Lower	Boner	F(F)	Limit	Cinci
WG219563													
WG219563LCSW2	LCSW	01/23/07 16:57	WC061230-1	820		834.4	mg/L	101.8	80	120			
WG219563LCSW5	LCSW	01/23/07 19:52	WC061230-1	820		841.9	mg/L	102.7	80	120			
L60707-05DUP	DUP	01/23/07 23:30			1090	1089.2	mg/L				0.1	20	
WG219563LCSW8	LCSW	01/23/07 23:43	WC061230-1	820		846.4	mg/L	103.2	80	120			
Aluminum, diss	olved		M200.7 IC	Р									
AC Z		Analyzed	PONSON	alc:	Sample	Fourt	Umits	Rec	Lower	Upper	RPD	Limi	Onal
WG219196								14		N.,.	•		
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.943	mg/L	97.2	95	105			
WG219196ICB	ICB	01/12/07 23:33				υ	mg/L		-0.09	0.09			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	1		1.019	mg/L	101.9	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	1	U	1.081	mg/L	108.1	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	1	U	1.1	mg/L	110	85	115	1.74	20	
Antimony, disso	olved		M200.8 IC	P-MS									
A62 (B	Туре	Analyzed	FENISON	OB	Sample	Formula	Linits	Res	34.E		7.7	111111	(entry)
WG219207													
WG219207ICV	ICV -	01/13/07 5:02	MS070108-2	.02		.02057	mg/L	102.9	90	110			
WG219207ICB	ICB	01/13/07 5:08			•	.00049	mg/L		-0.0012	0.0012			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.00625		.00622	mg/L	99.5	85	115			
L60694-01AS	AS	01/13/07 6:53	MS061218-3	.00625	U	.00723	mg/L	115.7	70	130			
L60694-01ASD	ASD	01/13/07 6:59	MS061218-3	.00625	U	.00695	mg/L	111.2	70	130	3.95	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.02		.02033	mg/L	101.7	90	110			
WG219245ICB	ICB	01/15/07 14:27				.00048	mg/L		-0.0012	0.0012			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.00625		.00619	mg/L	99	85	115			
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.00625	U	.00578	mg/L	92.5	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.00625	Ų	.00608	mg/L	97.3	70	130	5.06	20	
Arsenic, dissolv			M200.8 IC										
ACZ ID	Type	Analyzas	POSSON	er.	Sample	Faund	Units	Rec	Lower	Lipper	777	i i i i i i	Oural
WG219207		•											
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.05204	mg/L	104.1	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0015	0.0015			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.05006	mg/L	100.1	85	115			
L60694-01AS	AS	01/13/07 6:53	MS061218-3	.05	.0062	.0566	mg/L	100.8	70	130			
L60694-01ASD	ASD	01/13/07 6:59	MS061218-3	.05	.0062	.05525	mg/L	98.1	70	130	2.41	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		.05421	mg/L	108.4	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0015	0.0015			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.0513	mg/L	102.6	85	115			
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	.0012	.05165	mg/L	100.9	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	.0012	.05228	mg/L	102.2	70	130	1.21	20	

Phelps Dodge Sierrita

Project ID:

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ACZ Project ID: L60694

Barium, dissol	ved		M200.7 IC	:P									
ACZ III	Type	Analyzed	PCAPSON	СС	Sample	Found	Units	Rec	Lovier	laper	RF13		Sites
WG219259													
WG219259ICV	ICV	01/15/07 19:14	11061230-1	2		2.0292	mg/L	101.5	95	105			
WG219259ICB	ICB	01/15/07 19:18				· U	mg/L		-0.009	0.009			
WG219259LFB	LFB	01/15/07 19:34	11070102-4	.5		.4933	mg/L	98.7	85	115			
L60673-04AS	AS	01/15/07 19:58	11070102-4	5	61.6	64.8	mg/L	64	- 85	115			M3
L60673-04ASD	ASD	01/15/07 20:10	11070102-4	5	61.6	65.609	mg/L	80.2	85	115	1.24	20	M3
L60694-02AS	AS	01/15/07 20:38	11070102-4	.5	.065	.5422	mg/L	95.4	85	115			
L60694-02ASD	ASD	01/15/07 20:42	11070102-4	.5	.065	.5354	mg/L	94.1	85	115	1.26	20	
Beryllium, diss	olved		M200.8 IC	P-MS									
A 672 10	Type	Anguyzed	1989	Œ	am	Found	Units	Face	Lower	Ligner	RPD	f. hm f	Ormi
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.04979	- mg/L	99.6	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04923	mg/L	98.5	85	115			
L60694-01AS	AS	01/13/07 6:53	MS061218-3	.05	Ú ,	.04223	mg/L	84.5	70	130			
L60694-01ASD	ASD	01/13/07 6:59	MS061218-3	.05	U	.04269	mg/L	85.4	70	130	1.08	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		04958	mg/L	99.2	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.04854	mg/L	97.1	85	115			
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	U	.04907	mg/L	98.1	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	U	.04952	mg/L	99	70	130	0.91	20	٠.
Cadmium, diss	solved		M200.8 IC	P-MS							***************************************		-
A BZZ (B	Type	Analyzea	FENESON	6)8	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Qual
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.04964	mg/L	99.3	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04904	mg/L	98.1	85	115			
L60694-01AS	AS	01/13/07 6:53	MS061218-3	.05	· U	.05016	mg/L	100.3	70	130			
L60694-01ASD	ASD	01/13/07 6:59	MS061218-3	.05	U	.04992	mg/L	99.8	70	130	0.48	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		.0505	mg/L	101	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.04906	mg/L	98.1	85	115			
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	.0002	.0487	mg/L	97	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	.0002	.04928	mg/L	98.2	70	130	1.18	20	

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2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic QC Summary

ACZ Project ID: L60694

Phelps Dodge Sierrita

Project ID:

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Calcium, dissol	ved		M200.7 I	CP									
C7. T0	Type	Analyzed	Province						Creter	IFF	KPE		Qual
NG219196													
VG219196ICV	ICV	01/12/07 23:29	11061230-1	100		99.21	mg/L	99.2	95	105			
VG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.6	0.6			
VG219196LFB	LFB	01/12/07 23:49	11070102-4	67.95918		67.89	mg/L	99.9	85	115			
.60673-04AS	AS	01/13/07 0:53	11070102-4	67.95918	295	353.05	mg/L	85.4	85	115			
.60673-04ASD	ASD	01/13/07 0:57	11070102-4	67.95918	295	352.74	mg/L	85	85	115	0.09	20	
NG219259													
WG219259ICV	ICV	01/15/07 19:14	11061230-1	100		97.45	mg/L	97.5	95	105			
VG219259ICB	ICB	01/15/07 19:18				U	mg/L		-0.6	0.6			
VG219259LFB	LFB	01/15/07 19:34	11070102-4	67.95918		69.17	mg/L	101.8	85	115			
.60673-04AS	AS	01/15/07 19:58	11070102-4	679.5918	300	1005.6	mg/L	103.8	85	115			
.60673-04ASD	ASD	01/15/07 20:10	11070102-4	679.5918	300	979.5	mg/L	100	85	115	2.63	20	
.60694-02AS	AS	01/15/07 20:38	11070102-4	67.95918	514	550.6	mg/L	53.9	85	115			i
.60694-02ASD	ASD	01/15/07 20:42	11070102-4	67.95918	514	552.93	mg/L	57.3	85	115	0.42	20	
Chloride			M325.2 -	Colorimetric	;			***************************************			**********		
V.Z. (D			150		Samuelo		l Iriis		CARREIT	Doper		T	onal
NG219439													
VG219439ICV	ICV	01/19/07 14:15	WI061113-3	55		56.3	mg/L	102.4	90	110			
VG219439ICB	ICB	01/19/07 14:16				U	mg/L		-3	3			
VG219439LFB1	LFB	01/19/07 14:17	WI061127-1	30		30.6	mg/L	102	90	110			
WG219439LFB2	LFB	01/19/07 14:58	WI061127-1	30		31.3	mg/L	104.3	90	110			
.60692-07DUP	DUP	01/19/07 15:13			83	82.4	mg/L				0.7	20	
.60692-08AS	AS	01/19/07 15:17	WI061127-1	30	50	78.5	mg/L	95	90	110			
Chromium, diss	olved		M200.7 I	CP:							***************************************		
(67.18)		Analyzed	PICARSON	OC	Same	Freehold	l listes	Fig.	Lower		57516		

Chromium, dis	solved		M200.7 IC	P.									
- 2		Applyzad	PERMIT	QC		Found	Carlos	Rec	Lower	Specific	#{FISE		
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.959	mg/L	98	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.03	0.03			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	.5		.474	mg/L	94.8	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	.5	U	.469	mg/L	93.8	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	.5	U	.464	mg/L	92.8	85	115	1.07	20	

Cobalt, dissolv	ved		M200.7 IC	P									
A 7 ID		Anayzad	Perlice	or.	Semple	Feliand	Britis	200		Spice	RFD		Otto
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.921	mg/L	96.1	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.03	0.03			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	.5		.469	mg/L	93.8	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	.5	U	.462	mg/L	92.4	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	.5	U	.454	mg/L	90.8	85	115	1.75	20	

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Phelps Dodge Sierrita

Project ID:

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Conductivity @	25C		M120.1 -	Meter							orem voids, and a sec		
AGZ ID	Type	Analyzed	PENERIN	Ole.	Sample	Fallind		Rec	Louiser	1 square	RPD	Line	Guel
WG219563													
WG219563PBW1	PBW	01/23/07 16:45				. 2	umhos/cm		-10	10			
WG219563LCSW1	LCSW	01/23/07 16:46	PCN25346	1408.8		1439	umhos/cn	102.1	80	120			
WG219563PBW2	PBW	01/23/07 19:40				2	ımhos/cn		-10	10			
WG219563LCSW4	LCSW	01/23/07 19:42	PCN25346	1408.8		1417	umhos/cn	100.6	80	120			
L60707-05DUP	DUP	01/23/07 23:30			2340	2330	umhos/cn	•			0.4	20	
WG219563LCSW7	LCSW	01/23/07 23:32	PCN25346	1408.8		1421	umhos/cn	100.9	80	120			
Copper, dissolv	ed		M200.7 I	CP						,			
ACZID	Type	Analyzed	Sample	Found	Units	Rec	Lower	Upra	RIPE	Limit	Allal		
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.946	mg/L	97.3	95	105			
WG219196ICB	ICB	01/12/07 23:33				U.	mg/L		-0.03	0.03			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	.5		.478	mg/L	95.6	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	.5	U	.501	mg/L	100.2	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	.5	U	.507	mg/L	101.4	85	115	1.19	20	
Cyanide, total			M335.4 -	Colorimetri	c w/ distil	lation				***************************************			
A 972 B	Туре	Anelyzed		6[0	Samo	Forms	Units	Reg	Laster	Upper	NED.	E mili	Otto
WG219473													
WG219473ICV	ICV	01/20/07 20:52	WI070111-3	.3		.2949	mg/L	98.3	90	110			
WG219473ICB	ICB	01/20/07 20:53				U	mg/L		-0.015	0.015			
WG219389LRB	LRB	01/20/07 20:54				U	mg/L		-0.015	0.015			
WG219389LFB	LFB	01/20/07 20:55	WI070111-7	.2		.1908	mg/L	95.4	90	110			
L60685-10DUP	DUP	01/20/07 22:05			U	U	mg/L				0	20	RA
L60694-02LFM	LFM	01/20/07 22:07	WI070111-7	.2	.014	.2076	mg/L	96.8	90	110			
WG219474													
WG219474ICV	ICV	01/20/07 21:26	WI070111-3	.3		.2961	mg/L	98.7	90	110			
WG219474ICB	ICB	01/20/07 21:27				U	mg/L		-0.015	0.015			
WG219280LRB	LRB	01/20/07 21:27				U	mg/L		-0.015	0.015			
WG219280LFB	LFB	01/20/07 21:28	WI070111-7	.2		.1944	mg/L	97.2	90	110	,		
L60664-01DUP	DUP	01/20/07 21:43			U	.0076	mg/L				200	20	, RA
L60668-01LFM	LFM	01/20/07 21:45	WI070111-7	.2	U	.2121	mg/L	106.1	.90	110			
Fluoride			SM4500F	F-C									
ACZ ID	Тура	Analyzad	FONSON	OC	Sample	Found	bhiis	Rec	Loven	Unicor	TIPE	Limit	Giral
WG219819													
WG219819ICV	ICV	01/31/07 12:46	WC070126-1	1.996		2.05	mg/L	102.7	95	105			
WG219819ICB	ICB	01/31/07 12:53				U	mg/L		-0.3	0.3			
WG219819LFB1	LFB	01/31/07 12:59	WC061021-1		5.1	mg/L	102	90	110				
L60696-01AS	AS	01/31/07 14:47	4:47 WC061021-1 4.99902 .4			5.12	mg/L	94.4	85	115			
L60696-01DUP	DUP	01/31/07 14:50			.4	.44	mg/L				9.5	20	ŔA
WG219819LFB2	LFB	01/31/07 14:55	WC061021-1		5.07	mg/L	101.4	90	110				

Phelps Dodge Sierrita

Project ID:

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	MCSNUTGER TO THE				TO SHARE THE PARTY OF THE PARTY		STEREOR STREET	SATOMORPHIC PROPERTY.	VANDA DE LE CONTRACTOR DE LA CONTRACTOR DE		State Company of the	DENISTRATIVE SEE	
Iron, dissolved			M200.7 IC	CP									
				GIC .		FCHER	Times	Rest	l comme	lipcer	1111	E TITLE	
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.961	mg/L	98.1	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.06	0.06			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	1		.976	mg/L	97.6	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	1	1.32	2.246	mg/L	92.6	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	1	1.32	2.236	mg/L	91.6	85	115	0.45	20	
Lead, dissolved			M200.8 K	CP-MS									
Alexa (b	Type	11117211					Units	Para	1000	User	RPD		
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.04997	mg/L	99.9	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04697	mg/L	93.9	85	115			
L60694-01AS	AS	01/13/07 6:53	MS061218-3	.05	.001	.04612	mg/L	90.2	- 70	130			
L60694-01ASD	ASD	01/13/07 6:59	MS061218-3	.05	.001	.04608	mg/L	90.2	70	130	0.09	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		.05374	mg/∟	107.5	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.05158	mg/L	103.2	85	115			
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	.0001	.05186	mg/L	103.5	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	.0001	.05371	mg/L	107.2	70	130	3.5	20	
Magnesium, dis	solved		M200.7 I	CP									
AGZ (0		Arrenvasi		Cl	Sample	CHEZ	Urits	Nec	Leven	limiter	HPF.		Fig. 1
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	100		96.81	mg/L	96.8	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.6	0.6			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	54.98614		54.23	mg/L	98.6	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	54.98614	44.9	96.53	mg/L	93.9	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	54.98614	44.9	96.5	mg/L	93.8	85	115	0.03	20	
Manganese, dis	solved		M200.7 I	CP									
A(8623]B	1771.2	Asselvzeis	PENSON	200	Sample		Hijis	Post	Lover	Брте	ries.		Cost
WG219196		•											
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.9335	mg/L·	96.7	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.015	0.015			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	.5		.4811	mg/L	96.2	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	.5	.674	1.1258	mg/L	90.4	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	.5	.674	1.1242	mg/L	90	85	115	0.14	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Mercury, dissol	ved		M245.1 C	CVAA									
A(672.18)	Type:	Analyzed	PONTE	8(0.5	Same	France	Units	Sec.	0.701	Filtra	RPD	Limit	8080
WG219230													
WG219230ICV	ICV	01/16/07 13:27	11061220-1	.00498		.00496	mg/L	99.6	95	105			
WG219230ICB	ICB	01/16/07 13:29				U	mg/L		-0.0002	0.0002			
WG219282													
WG219282LRB	LRB	01/16/07 16:44				U	mg/L		-0.00044	0.00044			
WG219282LFB	LFB	01/16/07 16:47	11070104-3	.002		.00196	mg/L	98	85	115			
L60685-02LFM	LFM	01/16/07 16:51	11070104-3	.002	.0002	.00224	mg/L	102	85	115			
L60685-02LFMD	LFMD	01/16/07 16:53	11070104-3	.002	.0002	.00229	mg/L	104.5	85	115	2.21	20	
L60694-02LFM	LFM	01/16/07 17:23	11070104-3	.002	U	.00197	mg/L	98.5	85	115			
L60694-02LFMD	LFMD	01/16/07 17:25	11070104-3	.002	U	.00194	mg/L	97	85	115	1.53	20	
Molybdenum, d	lissolve	d	M200.7 I	CP	***		······································						·····
A 97 11	Тура	Analyzed	PONSON	DC	Samule	Found	Units	Rec	Lover	Upper	RPD	Limit	
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		2.009	mg/L	100.5	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.03	0.03			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	.5		.496	mg/L	99.2	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	.5	.03	.519	mg/L	97.8	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	.5	.03	.518	mg/L	97.6	85	115	0.19	20	
Nickel, dissolve	∍d		M200.7 I	CP						······································			
A67/10	Тура	Astrolyzacia	Pension	DΩ	Same	Found	Linits	Rec	Louise	1000	11111		The state of
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.92	mg/L	96	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.03	0.03			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	.5		.468	mg/L	93.6	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	.5	.01	.47	mg/L	92	85	115			
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	.5	:01	.467	mg/L	91.4	85	115	0.64	20	
Nitrate/Nitrite a	s N		M353.2 -	H2SO4 pr	eserved			··-					*****
A072 ID	Type	Analyzed	2.9	Q(C	Sample	Found	Linits	Rec	Lower	Upper	RPD	Limit	Ouri
WG219363											,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
WG219363ICV	ICV	01/17/07 18:29	WI061207-10	2.416		2.385	mg/L	98.7	90	110			
WG219363ICB	ICB	01/17/07 18:31				U	mg/L		-0.06	0.06			
WG219364													
WG219364ICV	ICV	01/17/07 21:05	WI061207-10	2.416		2.353	mg/L	97.4	90	110			
WG219364ICB	ICB	01/17/07 21:07				U	mg/L		-0.06	0.06			
WG219364LFB1	LFB	01/17/07 21:08	WI060906-4	2		2.012	mg/L	100.6	90	110			
WG219364LFB2	LFB	01/17/07 21:46	WI060906-4	2		1.994	mg/L	99.7	90	110			
L60685-04AS	AS	01/17/07 22:14	WI060906-4	20	9	30.2	mg/L	106	90	110			
L60685-06DUP	DUP	01/17/07 22:17			10.3	10.29	mg/L	,,,,	00	110	0.1	20	
			· · · · · · · · · · · · · · · · · · ·								V, 1		

Phelps Dodge Sierrita

Project ID:

OJ00XN

				NY INDIVINSIA DIA PARENTE	HOPEROLD IN THE HORIZONIA		Agrandanya niyetakin	dgeta sekera akad		CRIPPONICACIONISC	ethinkeli (mortemat	AND THE STREET	tarihi dataman katalong
pH (lab)			M150.1 -	Electrometr	ric								
ACZ ID	Tyrce	Analyzed	FORESON		Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Chara
WG219563			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
WG219563LCSW3	LCSW	01/23/07 17:00	PCN25442	6 .		6.1	units	101.7	90	110			
WG219563LCSW6	LCSW	01/23/07 19:55	PCN25442	6		6.14	units	102.3	90	110			
L60707-05DUP	DUP	01/23/07 23:30			8.1	8.14	units				0.5	20	
WG219563LCSW9	LCSW	01/23/07 23:46	PCN25442	6		6.14	units	102.3	90	110			
Potassium, diss	olved		M200.7 K	CP					· · · · · · · · · · · · · · · · · · ·				
ACZ IB	Type	Analyzer	E en Ballon	010	Samuelle	Fairne	Urms	Figure	Lower	Upper	FIP D	Linii	2430
WG219259	*												
WG219259ICV	ICV	01/15/07 19:14	11061230-1	20		20.05	mg/L	100.3	95	105			
WG219259ICB	ICB	01/15/07 19:18				U	mg/L		-0.9	0.9			
WG219259LFB	LFB	01/15/07 19:34	11070102-4	99.51014		102.34	mg/L	102.8	85	115			
L60673-04AS	AS	01/15/07 19:58	11070102-4	995.1014	638	1701.8	mg/L	106.9	85	115			
L60673-04ASD	ASD	01/15/07 20:10	11070102-4	995.1014	638	1682.2	mg/L	104.9	85	115	1.16	20	
L60694-02AS	AS:	01/15/07 20:38	11070102-4	99.51014	11.6	117.37	mg/L	106.3	85	115			
L60694-02ASD	ASD	01/15/07 20:42	11070102-4	99.51014	11.6	114.85	mg/L	103.8	85	115	2.17	20	
Residue, Filtera	bie (TD:	S) @180C	M160.1 -	Gravimetric	>					·	·		
A(85Z.)B	Type	Amelyzzed		0)8		Fourie	Units	Res	LENGE	Upper		Limit	Dittal
WG219243													
WG219243PBW	PBW	01/15/07 12:40				U	mg/L		-20	20			
WG219243LCSW	LCSW	01/15/07 12:41	PCN26278	261		292	mg/L	111.9	80	120			
L60698-01DUP	DUP	01/15/07 13:09			740	720	mg/L				2.7	20	
Selenium, disso	lved		M200.8 I	CP-MS			**************************************		······································				
A9/2 (8)	Type	Auralyzer	Figure	210	5 21 11 11 11	Found	Units	Rest	Conser	J. 1924	TIP I	11111	100
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.05		.05481	mg/L	109.6	90	110			
WG219207ICB	ICB	01/13/07 5:08				U	mg/L		-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.05089	mg/L	101.8	85	115			
L60694-01AS	AS	01/13/07 6:53	MS061218-3	.05	.0003	.05313	mg/L	105.7	70	130			
L60694-01ASD	ASD	01/13/07 6:59	MS061218-3	.05	.0003	.05423	mg/L	107.9	70	130	2.05	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sodium, dissol	ved		M200.7 K	CP									
ACZ ID	Туре	Analyzed	PONSON	G.C	Sample	Franci	Units	Rec	Lower	Univer	RFT	Limit	Ouri
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	100		99.56	mg/L	99.6	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.9	0.9			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	99.90786		99.72	mg/L	99.8	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	99.90786	4140	4027.44	mg/L	-112.7	85	115			M3
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	99.90786	4140	3986.27	mg/L	-153.9	85	115	1.03	20	M3
WG219259													
WG219259ICV	ICV	01/15/07 19:14	11061230-1	100		97.4	mg/L	97.4	95	105			
WG219259ICV	ICV	01/15/07 19:14	11061230-1	100		99.75	mg/L	99.8	95	105			
WG219259ICB	ICB	01/15/07 19:18				U	mg/L		-6	6			
WG219259ICB	ICB	01/15/07 19:18				U	mg/L		-0.9	0.9			
WG219259LFB	LFB	01/15/07 19:34	11070102-4	99.90786		100.8	mg/L	100.9	85	115			
.WG219259LFB	LFB	01/15/07 19:34	11070102-4	99.90786		101,77	mg/L	101.9	85	115			
L60673-04AS	AS	01/15/07 19:58	11070102-4	999.0786	7100	8005	mg/L	90.6	85	115	,		
L60673-04ASD	ASD	01/15/07 20:10	11070102-4	999.0786	7100	8056	mg/L	95.7	85	115	0.64	20	
L60694-02AS	AS	01/15/07 20:38	11070102-4	99.90786	97.9	196.83	mg/L	.99	85	115			
L60694-02ASD	ASD	01/15/07 20:42	11070102-4	99.90786	97.9	191.52	mg/L	93.7	85	115	2.73	20	
Sulfate			SM4500	SO4-D			····						
672	Турс	Analyzed		gr.	a and the	Former	Units	Rec	LOWER	Upper	117	Limit	Curel
WG219214				•									
WG219214PBW	PBW	01/13/07 13:00				· U	mg/L		-30	30			
WG219214LCSW	LCSW	01/13/07 13:02	WC061207-2	100	9	91	mg/L	91	80	120			
L60694-04DUP	DUP	01/13/07 14:05			1700	1804	mg/L				5.9	20	
Thallium, disso	ived		M200.8 I	CP-MS								-	
ACZ ID	Туре	Analyzed		OIC		weighted	linis.	P	Lower	Upper	P. P.	Limit	Oral
WG219207													
WG219207ICV	ICV	01/13/07 5:02	MS070108-2	.056		.05256 ⁻	mg/L	93.9	90	110			
WG219207ICB	ICB	01/13/07 5:08	MO070100 L	.000		.00230 U	mg/L	33.3	-0.0003	0.0003			
WG219207LFB	LFB	01/13/07 5:14	MS061218-3	.05		.04679	mg/L	93.6	85	115			
L60694-01AS	AS	01/13/07 6:53	MS061218-3	.05	U	.04552	mg/L	91	70	130			
L60694-01ASD	ASD	01/13/07 6:59	MS061218-3	.05	U	.04519	mg/L	90.4	70	130	0.73	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.056		.05725	mg/L	102.2	90	110			
WG219245ICB	ICB	01/15/07 14:27		1000		.00723 U	mg/L	102.2	-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.05264	mg/L	105.3	-0.0003 85	115			
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	U	.05454	mg/L	109.1	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	U	.05563	mg/L	111.3	70	130	1.98	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Zinc, dissolved		Analyzed	M200.7 IC		Sample	Petrod	Units		Lower	Spren	RPE	halt	Cim
WG219196													
WG219196ICV	ICV	01/12/07 23:29	11061230-1	2		1.939	mg/L	97	95	105			
WG219196ICB	ICB	01/12/07 23:33				U	mg/L		-0.03	0.03			
WG219196LFB	LFB	01/12/07 23:49	11070102-4	.5		.496	mg/L	99.2	85	115			
L60673-04AS	AS	01/13/07 0:53	11070102-4	.5	.11	.599	mg/L	97.8	85	115		*	
L60673-04ASD	ASD	01/13/07 0:57	11070102-4	.5	.11	.607	mg/L	99.4	85	115.	1.33	20	
					······						······································		

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

		DATA A STORY			
		PARAMETER	() 1 may () () (() () () () () () () () () ()		ESCRIPTION
L60694-01	WG219259	Barium, dissolved	M200.7 ICP	an the	ne accuracy of the spike recovery does not apply because lalyte concentration in the sample is disproportionate to e spike level. The recovery of the method control sample as acceptable.
	. WG219196	Sodium, dissolved	M200.7 ICP	an the	ne accuracy of the spike recovery does not apply because lalyte concentration in the sample is disproportionate to e spike level. The recovery of the method control sample as acceptable.
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	va	elative Percent Difference (RPD) was not used for data lidation because the sample concentration is too low for curate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	va	elative Percent Difference (RPD) was not used for data lidation because the sample concentration is too low for curate evaluation (< 10x MDL).
L60694-02	WG219196	Sodium, dissolved	M200.7 ICP	an the	ne accuracy of the spike recovery does not apply because halyte concentration in the sample is disproportionate to e spike level. The recovery of the method control sample as acceptable.
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	. va	elative Percent Difference (RPD) was not used for data didation because the sample concentration is too low for scurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	va	elative Percent Difference (RPD) was not used for data lidation because the sample concentration is too low for curate evaluation (< 10x MDL).
L60694-03	WG219196	Sodium, dissolved	M200.7 ICP	an the	ne accuracy of the spike recovery does not apply because halyte concentration in the sample is disproportionate to be spike level. The recovery of the method control sample has acceptable.
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	va	elative Percent Difference (RPD) was not used for data didation because the sample concentration is too low for scurate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	va	elative Percent Difference (RPD) was not used for data lidation because the sample concentration is too low for curate evaluation (< 10x MDL).
L60694-04	WG219259	Calcium, dissolved	M200.7 ICP	an the	ne accuracy of the spike recovery does not apply because halyte concentration in the sample is disproportionate to e spike level. The recovery of the method control sample as acceptable.
	WG219473	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA Re va	elative Percent Difference (RPD) was not used for data lidation because the sample concentration is too low for curate evaluation (< 10x MDL).
	WG219819	Fluoride	SM4500F-C	RA Re va	elative Percent Difference (RPD) was not used for data didation because the sample concentration is too low for curate evaluation (< 10x MDL).
	WG219243	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric		OS concentration is based on a final residue greater than 0 mg.

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60694

No certification qualifiers associated with this analysis

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60694

Date Received:

1/12/2007

Received By:

Date Printed:

1/12/2007

Revenue Verification

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

NO	NA
	X
	X
	Х
Х	
	X

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id	Temp (°C)	Rad (µR/hr)
1133	5.3	14.

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

REPAD.03.11.00.01

L60694: Page 18 of 20

Sample Receipt

Phelps Dodge Sierrita OJ00XN ACZ Project ID:

L60694

Date Received:

1/12/2007

Received By:

						50														

					YG< 2		, -	T >12	N/A	RAD	ID
1H-25A		Y		Υ							
1H-25B		Y		Υ							
1H-25C		Y		Y							
Z-5		Υ		Υ							
11	H-25A H-25B H-25C	H-25A H-25B H-25C	H-25A Y H-25B Y H-25C Y	H-25A Y H-25B Y H-25C Y	H-25A Y Y H-25B Y Y H-25C Y Y	H-25A Y Y H-25B Y Y Y H-25C Y Y	H-25A Y Y H-25B Y Y Y H-25C Y Y Y	H-25B Y Y H-25C Y Y	H-25A Y Y Y H-25B Y Y Y Y H-25C Y Y Y	H-25A Y Y Y H-25B Y Y Y H-25C Y Y Y	H-25A Y Y Y S S S S S S S S S S S S S S S S

Santa de Caramana de Para estada da Abraba de Caramana de Caramana de Caramana de Caramana de Caramana de Cara

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
Т	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

^{*} pH check performed by analyst prior to sample preparation

	Sample IDs	Reviewed By:		
--	------------	--------------	--	--

COC Number:

ANALYTICAL REQUEST SHEET
Chain of Custody
PO# - 0J00XN

2.O. Box 527, Green Valley, AZ 85622

Page / of /

Ambient Suite Ambient Suite Ambient Suite Ambient Suite Analysis Requested Field Data 26 26.3 22.3 Temp 26.1 1440 4750 344 1361 Cond 8.09 7.54 7.46 6.52 돐 S 5 5 Ŋ Unpres HOL Hao HNO N # of Cont. ω ထ œ 12:35 Time 13:32 13:09 14:50 1/10/2007 1/10/2007 1/10/2007 1/10/2007 Date Location MH-25B MH-25A MH-25C PZ-5 Lab Use Only

Sample Submitted By: Billy Dorris	Telephone No. 520-648-8873	520-648-8873		Fax No.
Report Results To: Billy Dorris	Telephone No. 520-648-8873	520-648-8873		Fax No. 520-648-8608
Samples Submitted on loe: (Yes / No) W		J	Laboratory Name and Address:
Surrendered By: FAIR 7. Chr.	Received By:	Date: : L'OTTime:	Time:	ACZ Laboratory
Surrendered By:	Received By:	Date:	Time:	30400 Downhill Drive
Comments/Special Instructions:				Steamboat Springs, CO 80487 Phone: 8003345493

Revised Analytical Report

March 12, 2007

Bill Dorris Phelps Dodge Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Project ID: OJ00XN ACZ Project ID: L60668

Bill Dorris:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 11, 2007. This project was assigned to ACZ's project number, L60668. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60668. 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 the requirements of NELAC.

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

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

12/Mar/07

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.





REPAD.01.11.00.01

L60668: Page 1 of 23

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

Case Narrative

Phelps Dodge Sierrita

March 12, 2007

Project ID: OJ00XN ACZ Project ID: L60668

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 10 ground water samples from Phelps Dodge Sierrita on January 11, 2007. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L60668. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

This project has been revised to include a separate abbreviated list of analytes, per client request.

Holding Times

Any analysis not performed within EPA recommended holding times have been qualified with an "H" flag.

Sample Analysis

These samples were analyzed for inorganic and organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures.

REPAD.03.06.05.01

L60668: Page 2 of 23

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-10

ACZ Sample ID:

L60668-02

Date Sampled:

01/09/07 13:45

Date Received:

01/11/07

Sample Matrix:

Ground Water

Field Data									
Parameter	EPA Method	Result	Ottel	ΧO	an ile		110	egipponente por proposition de la company de	
Conductivity (Field)	Field Measurement	1717			mS/cm			01/09/07 13:45	bd
pH (Field)	Field Measurement	6.7			units			01/09/07 13:45	bd
Temperature (Field)	Field Measurement	28.5			С			01/09/07 13:45	bd
Metals Analysis									
Parameter	EPA Method	Resulf	Ottel	110	Units	MDL	FOL	Date	Attraction
Calcium, dissolved	M200.7 ICP	484			mg/L	0.2	1	01/12/07 19:48	msh
Magnesium, dissolved	M200.7 ICP	80.8			mg/L	0.2	1	01/12/07 19:48	msh
Potassium, dissolved	M200.7 ICP	6.7		*	mg/L	0.3	2	01/12/07 19:48	msh
Sodium, dissolved	M200.7-ICP	74.0			mg/L	0.3	2	01/12/07 19:48	msh
Wet Chemistry					•				
Parameter	EPA Method	Result	Olivai	10	Units	MOL	POL	BPst Ke	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		138			mg/L	2	20	01/12/07 0:00	cas
CaCO3					-				
Carbonate as CaCO	3		U		mg/L	2	20	01/12/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	01/12/07 0:00	cas
Total Alkalinity		138			mg/L	2	20	01/12/07 0:00	cas
Cation-Anion Balance									
Cation-Anion Balance		0.4			%			02/05/07 0:00	calc
Sum of Anions		34.0			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		34.3			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	134		*	mg/L	2	10	01/15/07 15:45	jlf
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/26/07 14:27	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.66			mg/L	0.02	0.1	01/17/07 21:30	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2310			mg/L	10	20	01/12/07 9:57	lcp
Sulfate	SM4500 SO4-D	1310			mg/L	10	50	01/17/07 10:02	seb
TDS (calculated)	Calculation	2170			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio -	Calculation	1.06						02/05/07 0:00	calc
measured/calculated)									

Arizona license number: AZ0102

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-28

ACZ Sample ID:

L60668-03

Date Sampled:

01/09/07 13:25

Date Received:

01/11/07

Sample Matrix: Ground Water

			CALANTO POLÍTICO DA SERVICIO	activistic and a second				e de la companie de l	
Field Data									
Parameter	EPA Methed	Result	Outel	HO.	Units	MDL	POL	Date	Analyst
Conductivity (Field)	Field Measurement	2690			mS/cm			01/09/07 13:25	bd
pH (Field)	Field Measurement	7.2			units			01/09/07 13:25	bd
Temperature (Field)	Field Measurement	25.8			С			01/09/07 13:25	bd
Metals Analysis					•				
Parameter	EFA Method	Result			Units	WID)	201	i i i i	
Calcium, dissolved	M200.7 ICP	654			mg/L	0.2	1	01/12/07 19:52	msh
Magnesium, dissolved		95.3			mg/L	0.2	1	01/12/07 19:52	msh
Potassium, dissolved	M200.7 ICP	7.4		*	mg/L	0.3	2	01/12/07 19:52	msh
Sodium, dissolved	M200.7 ICP	165			mg/L	0.3	2	01/12/07 19:52	msh
,			*			0.0	_	01712701 10.02	,,,,,,,,,,
Wet Chemistry									
Parameter	EPA Method	Result	Oual	ΧO	Units	MDL	POL	Date	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		130			mg/L	2	20	01/12/07 0:00	cas
Carbonate as CaCO	3		· U	•	mg/L	. 2	20	01/12/07 0:00	cas
Hydroxide as CaCO3	3		Ù		mg/L	2	20	01/12/07 0:00	cas
Total Alkalinity		130			mg/L	2	20	01/12/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	•	1.4			%			02/05/07 0:00	calc
Sum of Anions		46.7			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		48.0			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	136		*	mg/L	2	10	01/15/07 14:59	jlf
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/26/07 14:30	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.45			mg/L	0.02	0.1	01/17/07 21:33	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	3280			mg/L	10	20	01/12/07 9:58	lcp
Sulfate	SM4500 SO4-D	1920			mg/L	10	50	01/17/07 10:07	seb
TDS (calculated)	Calculation	3060			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio -	Calculation	1.07						02/05/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-29

ACZ Sample ID:

L60668-04

Date Sampled:

01/09/07 12:50

Date Received:

01/11/07

Sample Matrix:

Ground Water

Field Data	EPA Method	Fig. 5 (1)			Units	MDL	Pol	Date	
Parameter									اد ما
Conductivity (Field)	Field Measurement	2600			mS/cm			01/09/07 12:50	bd
pH (Field)	Field Measurement	7.5			units			01/09/07 12:50	bd
Temperature (Field)	Field Measurement	25.8			С			01/09/07 12:50	bd
Metals Analysis									
Peremeter	EPA Wethod	Result	Gual	χō	Units	MDL	POL	Dake -	Amalysi
Calcium, dissolved	M200.7 ICP	566		NAC ART (() () () () () () () () ()	mg/L	0.2	1	01/12/07 19:56	msh
Magnesium, dissolved	M200.7 ICP	101			mg/L	0.2	1	01/12/07 19:56	msh
Potassium, dissolved	M200.7 ICP	11.4		*	mg/L	0.3	2	01/12/07 19:56	msh
Sodium, dissolved	M200.7 ICP	172			mg/L	0.3	2	01/12/07 19:56	msh
Mat Ob andata									
Wet Chemistry Parameter	EPA Method		Out				201		
Last and the second	SM2320B - Titration								
Alkalinity as CaCO3 Bicarbonate as	SWI2320B - Hitation	158			/1	•	00	04/40/07 0:00	
CaCO3		156			mg/L	2	20	01/12/07 0:00	cas
Carbonate as CaCO	3		U		mg/L	2	20	01/12/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	01/12/07 0:00	cas
Total Alkalinity		158			mg/L	2	20	01/12/07 0:00	cas
Cation-Anion Balance	Calculation				J				
Cation-Anion Balance		3.3			%			02/05/07 0:00	calc
Sum of Anions		41.6			meg/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		44.4			meg/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	136		*	mg/L	5	30	01/15/07 15:00	įlf
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	01/26/07 14:54	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.67			mg/L	0.02	0.1	01/17/07 21:34	pjb
Residue, Filterable	M160.1 - Gravimetric	2860			mg/L	10	20 .	01/12/07 9:59	lop
(TDS) @180C					0				
Sulfate	SM4500 SO4-D	1650			mg/L	10	50	01/17/07 10:11	seb
TDS (calculated)	Calculation	2730			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio -	Calculation	1.05						02/05/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-30

ACZ Sample ID:

L60668-05

Date Sampled:

01/09/07 09:44

Date Received:

01/11/07

Sample Matrix:

Ground Water

	ıeı	a i	U	a:	ta
2000	*****	2000	ww	888	Settle

Parameter	EPA Method	Result	Qual XQ Units MDL	POL Date An	alvst
Conductivity (Field)	Field Measurement	2780	mS/cm	01/09/07 9:44	bd
pH (Field)	Field Measurement	7.3	units	01/09/07 9:44	bd
Temperature (Field)	Field Measurement	26.2	С	01/09/07 9:44	bd

Metals Analysis

Paramoter	EPA Wethod	Result Oper		MoL	POL	Detre	analyst.
Calcium, dissolved	M200.7 ICP	459	mg/L	0.2	1	01/12/07 20:00	msh
Magnesium, dissolved	M200.7 ICP	119	mg/L	0.2	-1	01/12/07 20:00	msh
Potassium, dissolved	M200.7 ICP	12.7	* mg/L	0.3	2	01/12/07 20:00	msh
Sodium, dissolved	M200.7 ICP	227	mg/L	0.3	2	01/12/07 20:00	msh

Wet Chemistry

Wet Chemistry									
Pargrameter	EPA Method	Result	Qual	Χū	Units	MOL	POL	Dane	Armolysi
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		116			mg/L	2	20	01/12/07 0:00	cas
CaCO3	$(x_{ij}) = (x_{ij}) + (x_{ij}) $								
Carbonate as CaCO	3		U		mg/L	2	20	01/12/07 0:00	cas
Hydroxide as CaCO	3		U		mg/L	2	20	01/12/07 0:00	cas
Total Alkalinity		116			mg/L	2	20	01/12/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	e	-0.1			%			02/05/07 0:00	calc
Sum of Anions		43.1			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		43.0			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	136		*	mg/L	2	10	01/15/07 15:01	jlf
Fluoride	SM4500F-C	0.4	В	*	mg/L	0.1	0.5	01/26/07 15:11	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.20			mg/L	0.02	0.1	01/17/07 21:35	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	3000			mg/L	10	20	01/12/07 10:01	lcp
Sulfate	SM4500 SO4-D	1760			mg/L	10	50	01/17/07 10:20	seb
TDS (calculated)	Calculation	2780			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.08						02/05/07 0:00	calc

Arizona license number: AZ0102

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Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

PZ-8

Date Sampled:

01/10/07 09:40

Date Received:

01/11/07

Sample Matrix: Ground Water

Field Data								
Parameter	EPA Method	Rosuli	Gural XO	Units	MDL	FOL	Death	152 7.53
Conductivity (Field)	Field Measurement	985		mS/cm			01/10/07 9:40	bd
pH (Field)	Field Measurement	6.6		units			01/10/07 9:40	bd
Temperature (Field)	Field Measurement	21.0		С			01/10/07 9:40	bd
Metals Analysis								
Parameter	EPA Method	Result	Outel (C)	Unite	MDL	POL	Dalle	
Calcium, dissolved	M200.7 ICP	233		mg/L	0.2	1	01/12/07 20:04	msh
Magnesium, dissolved	M200.7 ICP	52.4		mg/L	0.2	1	01/12/07 20:04	msh
Potassium, dissolved	M200.7 ICP	7.4	*	mg/L	0.3	2	01/12/07 20:04	msh
Sodium, dissolved	M200.7 ICP	91.0		mg/L	0.3	2	01/12/07 20:04	msh
Wet Chemistry								hwerage construction and
Farentieter	EPA Method	Result	e Virginia (19	Units	MDL	POL	Date	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as		173		mg/L	2	20	01/12/07 0:00	cas
CaCO3						00		
Carbonate as CaCO			U	mg/L	2	20	01/12/07 0:00	cas
Hydroxide as CaCO3	3	470	U	mg/L	2	20	01/12/07 0:00	cas
Total Alkalinity		173		mg/L	2	20	01/12/07 0:00	cas
Cation-Anion Balance	Calculation	45.0					00/05/07 0:00	1 -
Cation-Anion Balance	•	15.2		%	0.4	0.5	02/05/07 0:00	calc
Sum of Anions		14.8		meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		20.1		meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	60		mg/L	1	5	01/15/07 15:02	jlf
Fluoride	SM4500F-C	0.9	*	mg/L	0.1	0.5	01/26/07 15:18	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.52		mg/L	0.02	0.1	01/17/07 21:40	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	990		mg/L	10	20	01/12/07 10:02	lcp
Sulfate	SM4500 SO4-D	460	*	mg/L	10	50	01/29/07 13:35	lcp
TDS (calculated)	Calculation	1010	•	mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	0.98					02/05/07 0:00	calc

Note: Suspected analytes were retested to verify the Cation-Anion Balance.

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2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

200,000	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. Allows for instrument and annual fluctuations.
	PCNISCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
	PQL	Practical Quantitation Limit, typically 5 times the MDL.
	QC	True Value of the Control Sample or the amount added to the Spike
	Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
	RPD	Relative Percent Difference, calculation used for Duplicate QC Types

Upper Upper Recovery Limit, in % (except for LCSS, mg/Kg)

Sample Value of the Sample of interest

C. Sample	nes		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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 Type Explanations

Blanks

Verifies that there is no or minimal contamination in the prep method or calibration procedure.

Control Samples

Verifies the accuracy of the method, including the prep procedure.

Duplicates

Verifies the precision of the instrument and/or method. Determines sample matrix interferences, if any.

Spikes/Fortified Matrix Standard

Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

- B Analyte concentration detected at a value between MDL and PQL.
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time.
- U Analyte was analyzed for but not detected at the indicated MDL

Michigan Conference

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples Supplement I, May 1994.
- (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
- (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (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.

REPIN03.02.07.01

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Phelps Dodge Project ID:		ita J00XN						ACZ F	Project ID): L60	668		
Alkalinity as Ca	.CO3	Micros de marijetik konstitus okalenda kalanda kalanda kalanda kalanda kanada kalanda kanada kanada kanada kan	SM2320B	Titration					**************************************			and the second second	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE
A1977 13	Түүг	Analyzed	PONSON	90	'	Found	Units	Fee	Lower	Spper	777	Limit	Control of
WG219167													
WG219167LCSW2	LCSW	01/12/07 12:45	WC061230-1	820		808.7	mall	98.6	80	120			
WG219167LCSW5	LCSW	01/12/07 12:45	WC061230-1 WC061230-1	820		829.1	mg/L mg/L	101.1	80	120			
L60668-06DUP	DUP	01/12/07 10:41	***************************************	020	173	173.5	mg/L	101.1	00	120	0.3	20	
WG219167LCSW8	LCSW	01/12/07 21:29	WC061230-1	820	. "	827.2	mg/L	100.9	80	120	0.0	20	
WG219332													
WG219332LCSW2	LCSW	01/17/07 13:20	WC061230-1	820		823.9	mg/L	100.5	-80	120			
WG219332LCSW5	LCSW	01/17/07 16:05	WC061230-1	820		828.1	mg/L	101	80	120			
L60668-07DUP	DUP	01/17/07 18:12			112	112.1	mg/L				0.1	20	
WG219332LCSW8	LCSW	01/17/07 18:24	WC061230-1	820		831.7	mg/L	101.4	80	120			
Aluminum, diss	solved		M200.7 IC	:P	· · · · · · · · · · · · · · · · · · ·								
ACZ ID	1772	Analyzed		OLC	Sample	Foure	Units	Pice.	Lover	Epper	RPI)	E (TEXT	enei
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.935	mg/L	96.8	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.09	0.09			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	1		1.089	mg/L	108.9	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	1	U	1.105	mg/L	110.5	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	1	U	1.107	mg/L	110.7	85	115	0.18	20	
Antimony, diss	olved		M200.8 IC	P-MS									
ACZ ID	1772	Amelyzed	PRNSON	OC	Sample	Found	tivits	Ret	250723	Spect			10.00
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.02		.02033	mg/L	101.7	90	110			
WG219245ICB	ICB	01/15/07 14:27				.00048	mg/L		-0.0012	0.0012			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.00625		.00619	mg/L	99	85	115			
L60616-02AS	AS .	01/15/07 14:50	MS061218-3	.00625	U	.00612	mg/L	97.9	70	130			
L60616-02ASD	ASD	01/15/07 14:55	MS061218-3	.00625	· U	.00636	mg/L	101.8	70	130	3.85	20	
L60668-06AS	AS	01/15/07 16:10	M\$061218-3	.00625	U	.00578	mg/L	92.5	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.00625	υ	.00608	mg/L	97.3	70	130	5.06	20	
Arsenic, dissol	ved		M200.8 IC	P-MS									
ACZ ID	Type	Atomiyzzeri	PVINSON		Sample	Found	Units	Ren	LOUBLEST	Upper	RFD		Cutal
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		.05421	mg/L	108.4	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0015	0.0015			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.0513	mg/L	102.6	85	115			
L60616-02AS	AS	01/15/07 14:50	MS061218-3	.05	.0005	.05653	mg/L	112.1	70	130			
L60616-02ASD	ASD	01/15/07 14:55	MS061218-3	.05	.0005	.05753	mg/L	114.1	70	130	1.75	20	
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	.0012	.05165	mg/L	100.9	70	130			

L60668-06ASD

ASD

01/15/07 16:16 MS061218-3

.05

.0012

.05228

mg/L

102.2

70

130

1.21 20

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID:	L60668
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Barium, dissolv	ved		M200.7 I	CP									
ACZ 10	Type	Arrebized	Penysen	er.	Sample		Triff.	i i i		Upper	RPD	Link	Care
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		2.0988	mg/L	104.9	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.009	0.009			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.5163	mg/L	103.3	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	.025	.562	mg/L	107.4	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	.025	.565	mg/L	108	85	115	0.53	20	
Beryllium, diss	olved		M200.8 I	CP-MS							************	New Action Co. 11 - 1	······································
ACZ ID	Type	Analyzad	PROFIE CO.	DIC.	5 (11)	Found	Little	Rec		2.1	R/PD	1111	Cital
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		.04958	mg/L	99.2	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.04854	mg/L	97.1	85	115			
L60616-02AS	AS	01/15/07 14:50	MS061218-3	.05	U	.05217	mg/L	104.3	70	130			
L60616-02ASD	ASD	01/15/07 14:55	MS061218-3	.05	U	.05176	mg/L	103.5	70	130	0.79	20	
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	U	.04907	mg/L	98.1	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	U	.04952	mg/L	99	70	130	0.91	20	
Cadmium, diss	olved		M200.8 I	CP-MS			*************************************	······			· · · · · · · · · · · · · · · · · · ·		···
AZD	Type	Analyzad	PONSON	0.0	Sample		Linits	Res	la viza	Vary St	RPD	Limit	Ches
WG219245	-					,							
WG219245ICV	ICV .	01/15/07 14:21	MS070108-2	.05		.0505	mg/L	101	90	110			
WG219245ICB	ICB	01/15/07 14:27	WICC70100-2	.00		.0303 U	mg/L	101	-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.04906	mg/L	98.1	85	115			
L60616-02AS	AS	01/15/07 14:50	MS061218-3	.05	U.	.05291	mg/L	105.8	70	130			
L60616-02ASD	ASD	01/15/07 14:55	MS061218-3	.05	U.	.05277	mg/L	105.5	70	130	0.26	20	
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	.0002	.0487	mg/L	97	70	130	0.20	20	
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	.0002	.04928	mg/L	98.2	7 0	130	1.18	20	
Calcium, dissol	ved	Manuscripton and the second se	M200.7 I	 CP						·			
A 57. T)	1777	Analyzad		DC	Sample	Found	Units	Rec	our.	Jones			6.00
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	100		98.41	mg/L	98.4	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L	-3	-0.6	0.6			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	67.95918		70.45	mg/L	103.7	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	67.95918	60.6	132.03	mg/L	105.1	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	67.95918	60.6	130.86	mg/L	103.4	85	115	0.89	20	
WG219275							*						
WG219275ICV	ICV	01/16/07 11:48	11061230-1	100		97.47	mg/L	97.5	95.	105			
WG219275ICB	ICB	01/16/07 11:52				U	mg/L		-0.6	0.6			
WG219275LFB	LFB	01/16/07 12:05	11070102-4	67.95918		66.09	mg/L	97.2	85	115			
								0		, 10			
L60663-06AS	AS	01/16/07 13:01	11070102-4	67.95918	171	231.1	mg/L	88.4	85	115			

Phelps Dodge Sierrita

Project ID:

Chloride			M325.2 - 0	Colorimetr	ic								
7.0	Type	Analyzed		0.0	111111	Falling	Units	Rec	Lower	Lipper	RPD	Limit	Dire
WG219236													,
WG219236ICV	ICV	01/15/07 13:04	WI061113-3	-55		58.1	mg/L	105.6	90	110			
WG219236ICB	ICB	01/15/07 13:05				1.7	mg/L		-3	3			
WG219238													
WG219238ICV	ICV	01/15/07 14:23	WI061113-3	55		56.2	mg/L	102.2	90	110			
WG219238ICB	ICB	01/15/07 14:24				1.7	mg/L		-3	3			
L60668-06AS	AS	01/15/07 15:03	WI061127-1	30	60	91.3	mg/L	104.3	90	110			
L60668-07DUP	DUP	01/15/07 15:05			490	481	mg/L				1.9	20	
WG219238LFB2	LFB	01/15/07 15:18	WI061127-1	30		30.9	mg/L	103	90	110			
L60589-01AS	AS	01/15/07 15:36	WI061127-1	30	45	55.5	mg/L	35	90	110			. M2
L60659-01DUP	DUP	01/15/07 15:38			4	3.7	mg/L				7.8	20	RA
WG219238ICV1	ICV	01/15/07 16:28	WI061113-3	55		56.8	mg/L	103.3	90	110			
WG219238ICB1	ICB	01/15/07 16:29				1.1	mg/L		-3	3			
WG219238LFB1	LFB	01/15/07 16:30	WI061127-1	30		28.7	mg/L	95.7	90	110			
Chromium, dis	solved		M200.7 IC	Р								*************	
A(#72 lb		Angluzed	Property	e le	Sample	Feeding	Units	Rec	o de Car	Upper	RPD		Giral
WG219145													
14/00404451014													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.929	mg/L	96.5	95	105			
WG219145ICV WG219145ICB	ICV ICB	01/12/07 17:55 01/12/07 17:59	11061230-1	2		1.929 U	mg/L mg/L	96.5	95 -0.03	105 0.03			
			II061230-1 II070102-4	.5			mg/L	96.5 99.4					
WG219145ICB	ICB	01/12/07 17:59			U	U	•		-0.03	0.03			
WG219145ICB WG219145LFB	ICB LFB	01/12/07 17:59 01/12/07 18:15	11070102-4	.5	U U	U .497	mg/L mg/L	99.4	-0.03 85	0.03 115	0.97	. 20	
WG219145ICB WG219145LFB L60663-07AS	ICB LFB AS ASD	01/12/07 17:59 01/12/07 18:15 01/12/07 19:20	11070102-4 11070102-4	.5 .5 .5		U .497 .511	mg/L mg/L mg/L	99.4 102.2	-0.03 85 85	0.03 115 115	0.97	. 20	
WG219145ICB WG219145LFB L60663-07AS L60663-07ASD	ICB LFB AS ASD	01/12/07 17:59 01/12/07 18:15 01/12/07 19:20	11070102-4 11070102-4 11070102-4	.5 .5 .5		U .497 .511	mg/L mg/L mg/L	99.4 102.2	-0.03 85 85	0.03 115 115	0.97 	20 Limit	Qual
WG219145LFB WG219145LFB L60663-07AS L60663-07ASD	ICB LFB AS ASD	01/12/07 17:59 01/12/07 18:15 01/12/07 19:20 01/12/07 19:24	II070102-4 II070102-4 II070102-4 M200.7 IC	.5 .5 .5	υ	.497 .511 .516	mg/L mg/L mg/L mg/L	99.4 102.2 103.2	-0.03 85 85 85	0.03 115 115 115			Qual
WG219145LFB WG219145LFB L60663-07AS L60663-07ASD Cobalt, dissolv	ICB LFB AS ASD	01/12/07 17:59 01/12/07 18:15 01/12/07 19:20 01/12/07 19:24	II070102-4 II070102-4 II070102-4 M200.7 IC	.5 .5 .5	υ	.497 .511 .516	mg/L mg/L mg/L mg/L	99.4 102.2 103.2	-0.03 85 85 85 85	0.03 115 115 115 115			Ottel
WG219145ICB WG219145LFB L60663-07AS L60663-07ASD Cobalt, dissolv ACZ ID WG219145	ICB LFB AS ASD Yed	01/12/07 17:59 01/12/07 18:15 01/12/07 19:20 01/12/07 19:24 Analyzed	II070102-4 II070102-4 II070102-4 M200.7 IC	.5 .5 .5	υ	.497 .511 .516 Found	mg/L mg/L mg/L mg/L	99.4 102.2 103.2	-0.03 85 85 85 85	0.03 115 115 115 Unper			Qual
WG219145ICB WG219145LFB L60663-07AS L60663-07ASD Cobalt, dissolv ACZ ID WG219145 WG219145ICV	ICB LFB AS ASD red Type	01/12/07 17:59 01/12/07 18:15 01/12/07 19:20 01/12/07 19:24 Analyzed	II070102-4 II070102-4 II070102-4 M200.7 IC	.5 .5 .5	υ	.497 .511 .516	mg/L mg/L mg/L mg/L	99.4 102.2 103.2	-0.03 85 85 85 85	0.03 115 115 115 115			Qual
WG219145ICB WG219145LFB L60663-07AS L60663-07ASD Cobalt, dissolv ACZ ID WG219145 WG219145ICV WG219145ICB	ICB LFB AS ASD red Type	01/12/07 17:59 01/12/07 18:15 01/12/07 19:20 01/12/07 19:24 Analyzed 01/12/07 17:55 01/12/07 17:59	II070102-4 II070102-4 II070102-4 M200.7 IC PCN/SCN II061230-1	.5 .5 .5 P	υ	U .497 .511 .516 Found	mg/L mg/L mg/L mg/L	99.4 102.2 103.2 Rec	-0.03 85 85 85 Lower 95 -0.03	0.03 115 115 115 115 Upper			Qual

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID: L60668

Conductivity @:	25C		M120.1 -	Meter									
A62 ID	Турхе	Analyzad	PONSON	ОC	Same	Found		Rec	Lower	Upper	Retu	Limit	Qual
WG219167													
WG219167PBW1	PBW	01/12/07 12:32				U	ımhos/crr		-10	10			
WG219167LCSW1	LCSW	01/12/07 12:33	PCN25346	1408.8		1466	ımhos/cri	104.1	80	120			
WG219167PBW2	PBW	01/12/07 18:28				U	ımhos/cn		-10	10			
WG219167LCSW4	LCSW	01/12/07 18:30	PCN25346	1408.8		1498	ımhos/cn	106.3	80	120			
L60668-06DUP	DUP	01/12/07 21:15			1380	1367	ımhos/cn				0.9	20	
WG219167LCSW7	LCSW	01/12/07 21:17	PCN25346	1408.8		1487	ımhos/cri	105.6	80	120			•
WG219332													
WG219332PBW1	PBW	01/17/07 13:08				U	ımhos/cn		-10	10			
WG219332LCSW1	LCSW	01/17/07 13:10	PCN25346	1408.8		1513	ımhos/cn	107.4	-80	120			
WG219332PBW2	PBW	01/17/07 15:53				U	ımhos/cn		-10	10			
WG219332LCSW4	LCSW	01/17/07 15:55	PCN25346	1408.8		1544	ımhos/cn	109.6	80	120			
L60668-07DUP	DUP	01/17/07 18:12			4700	4680	ımhos/cn				0.4	20	
WG219332LCSW7	LCSW	01/17/07 18:14	PCN25346	1408.8		1552	ımhos/cn	110.2	80	120			
Copper, dissolv	ed		M200.7 I	CP								•	
A672 [])			PCN/SICN	ele		Found	Units		Lover	lipper	FPU	Lhnit	Oral
WG219145													2000
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.924	mg/L	96.2	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.502	mg/L	100.4	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	· U	.518	mg/L	103.6	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.521	mg/L	104.2	85	115	0.58	20	
Cyanide, total			M335.4 -	Colorimetr	ic w/ disti	llation							
AGZEID	Туре	Analyzed	Floring	0.16	Sample	Found	Urits	Rec	80.70	page	200		Gual
WG219473													
WG219473ICV	ICV	01/20/07 20:52	WI070111-3	.3		.2949	mg/L	98.3	90	110			
WG219473ICB	ICB	01/20/07 20:53				U	mg/L		-0.015	0.015			
WG219474													
WG219474ICV	ICV	01/20/07 21:26	WI070111-3	.3		.2961	mg/L	98.7	90	110			
WG219474ICB	ICB	01/20/07 21:27				U	mg/L		-0.015	0.015			
WG219280LRB	LRB	01/20/07 21:27				U	mg/L		-0.015	0.015			
WG219280LFB	LFB	01/20/07 21:28	WI070111-7	.2		.1944	mg/L	97.2	90	110			
L60659-01DUP	DUP	01/20/07 21:30			U	U	mg/L				0	20	RA
L60663-01LFM	LFM	01/20/07 21:32	WI070111-7	.2	U	.2134	mg/L	106.7	90	110			
L60664-01DUP	DUP	01/20/07 21:43			U	.0076	mg/L				200	20	RA
L60668-01LFM	LFM	01/20/07 21:45	WI070111-7	.2	U	.2121	mg/L	106.1	90	110			

REPIN.01.06.05.01

L60668: Page 12 of 23

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganie OC Summary

Phelps Dodg Project ID:	•	rita J00XN						ACZ F	Project ID): L60	668		
Fluoride		RAMINIST HIS CONSTRUCTION OF THE CONSTRUCTION OF THE CONSTRUCTION OF THE CONSTRUCTION OF THE CONSTRUCTION OF T	SM4500F	C									ALLEGOTIA ESTRAPORACION CONTENTO
A02.40	Type	Analyzed		er.	- 18 mg/d	CHARLE	Units	Rec	Lower	Upper	FFD	Limit	OTTEN.
WG219692													
WG219692ICV1	ICV	01/26/07 11:37	WC070126-1	1.996		2.08	mg/L	104.2	95	105			
WG219692ICB1	ICB	01/26/07 11:43	***************************************	1.000		U.00	mg/L	104.2	-0.3	0.3			
WG219692LFB1	LFB	01/26/07 11:50	WC061021-1	4.99902		5.04	mg/L	100.8	90	110			
L60668-03AS	AS	01/26/07 14:37	WC061021-1	4.99902	2	4.53	mg/L	86.6	85	115			
L60668-03DUP	DUP	01/26/07 14:44			.2	.3	mg/L				40	20	R/A
WG219692LFB2	LFB	01/26/07 14:47	WC061021-1	4.99902		4.82	mg/L	96.4	90	110			
L60685-05AS	AS	01/26/07 16:10	WC061021-1	4.99902	.4	4.88	mg/L	89.6	85	115			
L60685-05DUP	DUP	01/26/07 16:28			.4	.43	mg/L				7.2	20	1 R/
Iron, dissolved	 	·······	M200.7 I	GP									***********
4.07	Type	Analyzed	PONSEA	6	31112	Found	Units	Rec	and the second	Dogge	RPD	Large	C21201
WG219275													
WG219275ICV	ICV	01/16/07 11:48	11061230-1	2		1.952	mg/L	97.6	. 95	105			
WG219275ICB	ICB	01/16/07 11:52				U	mg/L		-0.06	0.06			
WG219275LFB	LFB	01/16/07 12:05	11070102-4	1		.967	mg/L	96.7	85	115			
L60663-06AS	AS	01/16/07 13:01	11070102-4	1	.18	1.162	mg/L	98.2	- 85	. 115			
L60663-06ASD	ASD	01/16/07 13:04	11070102-4	1	.18	1.141	mg/L	96.1	85	115	1.82	20	
Lead, dissolve	d		M200.8 I	CP-MS			************	· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·
ACZ 10	Type	Analyzad	PONISON	QC	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Corre
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		.05374	mg/L	107.5	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.05158	mg/L	103.2	85	115			
L60616-02AS	AS	01/15/07 14:50	MS061218-3	.05	.0008	.05557	mg/L	109.5	70	130			
L60616-02ASD	ASD	01/15/07 14:55	MS061218-3	.05	.0008	.05595	mg/L	110.3	70	130	0.68	20	
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	.0001	.05186	mg/L	103.5	70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	.0001	.05371	mg/L	107.2	70	130	3.5	20	
Magnesium, di	ssolved		M200.7 I	CP									
1.07	Туре	Americand	FERISION	Qt.	Sample	Found	Units	Ror	Lower	Upper	7171)	_ 1771 1	P(ID)
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	100		96.17	mg/L	96.2	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.6	0.6			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	54.98614		56.35	mg/L	102.5	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	54.98614	12.9	72.37	mg/L	108.2	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	54.98614	12.9	71.56	mg/L	106.7	85	115	1.13	20	
Manganese, di	ssolved		M200.7 I	CP									
Avz B	Tyre:	Anniyzza	78,5216.1	0/6	Sample	Found		Ren	Lower	l joya et	100	1 1111	
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.9127	mg/L	95.6	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.015	0.015			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.5087	mg/L	101.7	85	115			
1 60662 0746	۸۵	04/42/07 40:20	11070402.4		11	E400	ma/	100.4	05	115			

U

.5122

mg/L

mg/L

102.4

103

85

85

115

115

.5

AS.

01/12/07 19:20 | 11070102-4

ASD 01/12/07 19:24 II070102-4

L60663-07AS

L60663-07ASD

0.55

Phelps Dodge Sierrita

Project ID:

ACZ Project ID: L60668

Mercury, dissolv	/ed		M245.1	CVAA									
ACZ ID	Туре	Accilyzed	PelVSt	e[c	Sample	Found	Units	Rec	Lower	Upper	RPD	Limit	Count
WG219230													
WG219230ICV	ICV	01/16/07 13:27	11061220-1	.00498		.00496	mg/L	99.6	95	105			
WG219230ICB	ICB	01/16/07 13:29				U	mg/L		-0.0002	0.0002			
WG219231													
WG219231LRB	LRB	01/16/07 15:03				U	mg/L		-0.00044	0.00044			
WG219231LFB	LFB	01/16/07 15:05	11070104-3	.002		.00212	mg/L	106	85	115			
L60668-07LFM	LFM	01/16/07 16:02	11070104-3	.002	U	.0021	mg/L	105	85	115			
L60668-07LFMD	LFMD	01/16/07 16:04	11070104-3	.002	U	.00217	mg/L	108.5	85	115	3.28	20	
Molybdenum, di	issolve	d	M200.7	ICP									***********
ACZ D	Туре	Amalyzed	presson	or:	Samuelle		Littis	Rec	20,772	United	REE	Elmit	Oreal
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.986	mg/L	99.3	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5	• •	.515	mg/L	103	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U	.54	mg/L	108	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.534	mg/L	106.8	85	115	1.12	20	
Nickel, dissolve	d		M200.7	ICP									
A ZID		Analyzza	PONSO	0.0	Sample	Found	Units	Plan	Lower	pper	R.FD	Limit	6 (17)
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.896	mg/L	94.8	95	105			•
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.487	mg/L	97.4	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U	.496	mg/L	99.2	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.506	mg/L	101.2	85	115	2	20	
Nitrate/Nitrite as	s N		M353.2	- H2SO4 pr	eserved					·			
A9Z D	Tyne	Astropand	POMEST	.gc	Sample	Formul	Units	Rac	Lower	Super	RPD	Limit	Guel
WG219363													
WG219363ICV	ICV	01/17/07 18:29	WI061207-1	2.416		2.385	mg/L	98.7	90	110			
WG219363ICB	ICB	01/17/07 18:31				U	mg/L		-0.06	0.06			
WG219364													
WG219364ICV	ICV	01/17/07 21:05	WI061207-1	2.416		2.353	mg/L	97.4	90	110			
WG219364ICB	ICB	01/17/07 21:07				U	mg/L		-0.06	0.06			
WG219364LFB1	LFB	01/17/07 21:08	WI060906-4	2		2.012	mg/L	100.6	90	110			
L60668-02DUP	DUP	01/17/07 21:31			1.66	1.663	mg/L				0.2	20	
WG219364LFB2	LFB	01/17/07 21:46	WI060906-4	2		1.994	mg/L	99.7	90	110			
L60668-01AS	AS	01/17/07 22:07	WI060906-4	10	6.6	17.3	mg/L	107	90	110			

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Project ID:

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pH (lab)			M150.1 -	- Electrometri	ic								
A02 B	T pas	Amalyzad		Qlo	Salina	Found	Units	Fig.	Lower	Linguar		Limit	OHE
WG219167													
WG219167LCSW3	LCSW	01/12/07 12:47	PCN25442	6		6.06	units	101	90	110			
WG219167LCSW6	LCSW	01/12/07 18:44	PCN25442	6		6.05	units	100.8	90	110			
L60668-06DUP	DUP	01/12/07 21:15			8.2	8.22	units				0.2	20	
WG219167LCSW9	LCSW	01/12/07 21:32	PCN25442	6		6.06	units	101	90	110			
WG219332													
WG219332LCSW3	LCSW	01/17/07 13:23	PCN25442	6		6.08	units	101.3	90	110			
WG219332LCSW6	LCSW	01/17/07 16:08	PCN25442	6		6.07	units	101.2	90	110			
L60668-07DUP	DUP	01/17/07 18:12			7.6	7.74	units				1.8	20	
WG219332LCSW9	LCSW	01/17/07 18:27	PCN25442	6		6.07	units	101.2	90	110			
Potassium, diss	olved		M200.7	CP									
ACZ IB	Турга	Analyzed	PONSON	ΩE	Sample	Former	Units	Res	Lower	Upper		Limit	Olini
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	20		20.3	mg/L	101.5	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.9	0.9			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	99.51014		105.44	mg/L	106	85	11 5			
L60663-07AS	AS	01/12/07 19:20	11070102-4	99.51014	5.5	121.96	mg/L	117	85	115			M1
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	99.51014	5.5	120.43	mg/L	115.5	85	115	1.26	20	M1
Residue, Filtera	ble (TDS	S) @180C	M160.1	- Gravimetric							•		
A672 (8)	Tyrre	Analyzad	P C N I S	616	Sample	Former	Juits	13.00	Lower	Upper		Litte	Offel
WG219160													
WG219160PBW													
	PBW	01/12/07 9:35				U	mg/L		-20	20			
WG219160LCSW	PBW LCSW	01/12/07 9:35 01/12/07 9:36	PCN26278	261		U 272	mg/L mg/L	104.2	-20 80	20 120			
WG219160LCSW L60668-07DUP			PCN26278	261	3820		-	104.2			0.6	20	
	LCSW DUP	01/12/07 9:36	PCN26278 M200.8		3820	272	mg/L	104.2			0.6	20	
L60668-07DUP	LCSW DUP	01/12/07 9:36	· 	ICP-MS	3820 Sample	272 3844	mg/L	104,2 Rec			0.6	20 Limit	Qual
L60668-07DUP Selenium, disso	LCSW DUP	01/12/07 9:36 01/12/07 10:04	M200.8	ICP-MS		272 3844	mg/L mg/L		80	120			Cust
Selenium, disso	LCSW DUP	01/12/07 9:36 01/12/07 10:04	M200.8	ICP-MS		272 3844	mg/L mg/L Units	Rec	80 Lower	120			Caral
Selenium, disso ACZ ID WG219201	LCSW DUP Ived	01/12/07 9:36 01/12/07 10:04 Analyzed	M200.8 PCN/SCN	ICP-MS		272 3844 Found	mg/L mg/L		80	120			Cust
Selenium, disso ACZ ID WG219201 WG219201ICV	LCSW DUP Ived Type	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02	M200.8 PCN/SCN	ICP-MS		272 3844 Found .05439	mg/L mg/L Units	Rec	Express 90	120 Upper			Cust
Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB	LCSW DUP Ived Type	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07	M200.8 PCN/SCN MS070108-2	ICP-MS		272 3844 Found .05439	mg/L mg/L Units mg/L mg/L	Rec 108.8	80 Lower 90 -0.0003	120 Upper 110 0.0003			Cuei
Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB	LCSW DUP Ived Type	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13	M200.8 PCN/SCN MS070108-2 MS061218-3	ICP-MS05	Sample	272 3844 Found .05439 U .05135	mg/L mg/L Units mg/L mg/L mg/L	108.8 .	90 -0.0003 85	120 Upper 110 0.0003 115			Cutal
Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB L60663-07AS	LCSW DUP Ived Type ICV ICB LFB AS	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13 01/13/07 2:49	M200.8 PCN/SCN MS070108-2 MS061218-3 MS061218-3	.05 .05	Sample	272 3844 Found .05439 U .05135 .06006	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L	108.8 102.7 118.7	90 -0.0003 85 70	120 Upper 110 0.0003 115 130	RPD .	Egypt	Cual
Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB L60663-07AS L60663-07ASD	LCSW DUP Ived Type ICV ICB LFB AS	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13 01/13/07 2:49	M200.8 PCN/SCN MS070108-2 MS061218-3 MS061218-3	.05 .05	Sample	272 3844 Found .05439 U .05135 .06006	mg/L mg/L Units mg/L mg/L mg/L mg/L mg/L	108.8 102.7 118.7	90 -0.0003 85 70	120 Upper 110 0.0003 115 130	RPD .	Egypt	Cessi
Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB L60663-07AS L60663-07ASD	ICSW DUP Ived Type ICV ICB LFB AS ASD	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13 01/13/07 2:55	M200.8 PCN/SCN MS070108-2 MS061218-3 MS061218-3 MS061218-3	.05 .05 .05 .05	Sample	272 3844 Found .05439 U .05135 .06006 .05898	mg/L mg/L mg/L mg/L mg/L mg/L	108.8 102.7 118.7 116.6	90 -0.0003 85 70 70	120 Upper 110 0.0003 115 130 130	RPD .	Egypt	Cuel
Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB L60663-07AS L60663-07ASD WG219245 WG219245ICV	ICSW DUP Ived Type ICV ICB LFB AS ASD	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13 01/13/07 2:49 01/13/07 2:55	M200.8 PCN/SCN MS070108-2 MS061218-3 MS061218-3 MS061218-3	.05 .05 .05 .05	Sample	272 3844 Found .05439 U .05135 .06006 .05898	mg/L mg/L mg/L mg/L mg/L mg/L	108.8 102.7 118.7 116.6	90 -0.0003 85 70 70	120 Upper 110 0.0003 115 130 130	RPD .	Egypt	Cual
E60668-07DUP Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB L60663-07AS L60663-07ASD WG219245 WG219245ICV WG219245ICB	ICSW DUP Ived Type ICV ICB LFB AS ASD ICV ICB	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13 01/13/07 2:49 01/13/07 2:55 01/15/07 14:21 01/15/07 14:27	M200.8 PCN/SCN MS070108-2 MS061218-3 MS061218-3 MS070108-2 MS061218-3 MS061218-3 MS061218-3	.05 .05 .05 .05	Sample	272 3844 Found .05439 U .05135 .06006 .05898	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	108.8 102.7 118.7 116.6	90 -0.0003 85 70 70 -0.0003	120 Upper 110 0.0003 115 130 130 110 0.0003	RPD .	Egypt	Chron
L60668-07DUP Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB L60663-07AS L60663-07ASD WG219245 WG219245ICV WG219245ICB WG219245ICB WG219245LFB L60616-02AS L60616-02ASD	ICSW DUP Ived Type ICV ICB LFB AS ASD ICV ICB LFB AS ASD	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13 01/13/07 2:49 01/13/07 2:55 01/15/07 14:21 01/15/07 14:32 01/15/07 14:50 01/15/07 14:55	M200.8 PCN/SCN MS070108-2 MS061218-3 MS061218-3 MS070108-2 MS061218-3 MS061218-3 MS061218-3 MS061218-3	.05 .05 .05 .05 .05	.0007 .0007	272 3844 Found .05439 U .05135 .06006 .05898 .05463 .0001 .04751 .05731	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	108.8 102.7 118.7 116.6 109.3	90 -0.0003 85 70 70 -0.0003 85	120 Upper 110 0.0003 115 130 110 0.0003 115	RPD .	Egypt	Circl
E60668-07DUP Selenium, disso ACZ ID WG219201 WG219201ICV WG219201ICB WG219201LFB L60663-07AS L60663-07ASD WG219245 WG219245ICV WG219245ICB WG219245IFB L60616-02AS	ICSW DUP Ived Type ICV ICB LFB AS ASD ICV ICB LFB AS	01/12/07 9:36 01/12/07 10:04 Analyzed 01/13/07 1:02 01/13/07 1:07 01/13/07 1:13 01/13/07 2:49 01/13/07 2:55 01/15/07 14:21 01/15/07 14:32 01/15/07 14:50	M200.8 PCN/SCN MS070108-2 MS061218-3 MS061218-3 MS070108-2 MS061218-3 MS061218-3 MS061218-3	.05 .05 .05 .05 .05	.0007 .0007	272 3844 Found .05439 U .05135 .06006 .05898 .05463 .0001 .04751	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	108.8 102.7 118.7 116.6 109.3 95 114.6	90 -0.0003 85 70 70 -0.0003 85 70	120 Upper 110 0.0003 115 130 110 0.0003 115 130	RPD 1.81	Limit 20	Chal

Phelps Dodge Sierrita

Project ID:

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Sodium, dissolv	/ed		M200.7 K	CP					Base and recommend control of				
ACZ ID	Турс	Amplyzad	PONSON		Samole	Found	Units	Flee	Lower	Soper	71710	Line	Publ
WG219145													
WG219145ICV	ICV	01/12/07 17:55	II061230-1	100		99.82	mg/L	99.8	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.9	0.9			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	99.90786		104.26	mg/L	104.4	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	99.90786	41.3	150.82	mg/L	109.6	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	99.90786	41.3	149.41	mg/L	108.2	85	115	0.94	20	
WG219275												٠.	
WG219275ICV	ICV	01/16/07 11:48	11061230-1	100		101.37	mg/L	101.4	95	105			
WG219275ICB	ICB	01/16/07 11:52				U	mg/L		-0.9	0.9			
WG219275LFB	LFB	01/16/07 12:05	11070102-4	99.90786		100.06	mg/L	100.2	85	115			
L60663-06AS	AS	01/16/07 13:01	11070102-4	99.90786	57.5	163.29	mg/L	105.9	85	115			
L60663-06ASD	ASD	01/16/07 13:04	11070102-4	99.90786	57.5	165	mg/L	107.6	85	115	1.04	20	
Sulfate			SM4500	SO4-D	***************************************						····		
7.11	Type	Asvilykas	SOMEON	QC	Same.	77111	Links		Lower	Upper	RED		Cinn
WG219319						ž.							
WG219319PBW	PBW	01/17/07 9:45	* *			U .	mg/L		-30	30			
WG219319LCSW	LCSW	01/17/07 9:49	WC061207-2	100		110	mg/L	. 110	80	120			
L60668-04DUP	DUP	01/17/07 10:16			1650	1688	mg/L			720	2.3	20	
WG219767													
WG219767PBW	PBW	01/29/07 13:26				U	mg/L		-30	30			
WG219767LCSW	LCSW	01/29/07 13:29	WC061207-2	100		92	mg/L	92	80	120		•	
L60821-01DUP	DUP	01/29/07 14:02			20	17	mg/L				16.2	20	RA
Thallium, dissol	ved		M200.8 K	CP-MS									
AC7 ID	Tyre	Analyzed	SENSON	0.0	Sample	Found	Units	Rec	Lower	doner	RPD	i inst	Oreal
WG219201								,					
WG219201ICV	ICV	01/13/07 1:02	MS070108-2	.056		.05323	mg/L	95.1	90	110			
WG219201ICB	ICB	01/13/07 1:07				U	mg/L		-0.0003	0.0003			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.05		.04837	mg/L	96.7	85	115			
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.05	U	.04892	mg/L	97.8	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.05	U	.04842	mg/L	96.8	70	130	1.03	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.056		.05725	mg/L	102.2	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0003	0.0003			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.05264	mg/L	105.3	85	115			
L60616-02AS	AS	01/15/07 14:50	MS061218-3	.05	.0002	.0559	mg/L	111.4	70	130			
L60616-02ASD	ASD	01/15/07 14:55	MS061218-3	.05	.0002	.05648	mg/L	112.6	70	130	1.03	20	
L60668-06AS	AS	01/15/07 16:10	MS061218-3	.05	U	.05454	mg/L	109.1	.70	130			
L60668-06ASD	ASD	01/15/07 16:16	MS061218-3	.05	U	.05563	mg/L	111.3	70	130	1.98	20	

Phelps Dodge Sierrita

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ACZ Project ID: L60668

Zinc, dissolved	l		M200.7 IC	CP.				2000 100 100 100 100 100 100 100 100 100		2410411000013E13E100		W. (1980)	AND PROPERTY VENERAL VALUE
ACZID	Type	Analyzed	PONISCN	ŧΙ		Forms	Units	Rec	Larries	Upper	PPE		Over
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.917	mg/L	95.9	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.512	mg/L	102.4	85	115			
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U	.551	mg/L	110.2	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.541	mg/L	108,2	85	115	1.83	20	

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Inorganic Extended **Qualifier Report**

Phelps Dodge Sierrita

A(847.118)	MORKAUW	PARAMETER	METHOD	6 374	DESCRIPTION
L60668-01	WG219145	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219238	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219160	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	ZO	TDS concentration is based on a final residue greater than 200 mg.
L60668-02	WG219145	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219238	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA ·	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60668-03	WG219145	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219238	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60668-04	WG219145	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219238	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

		PARAMETER	REHOL		DESCRIPTION
L60668-05	WG219145	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219238	Chloride	M325.2 - Colorimetric	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60668-06	WG219145	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219767	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60668-07	WG219145	Potassium, dissolved	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60668-08	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60668

No certification qualifiers associated with this analysis

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60668

Date Received:

1/11/2007

Received By:

Date Printed:

1/11/2007

Receipt Verification

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		Х
Х		
		Х
Х		
X		
Х		
X		
Х		
Х	ACCURATION TO THE PROPERTY OF	
		Х
X		
×		
		Х

Exceptions: If you answered no to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shipping Containers

Cooler Id		Temp (°C)	Rad (µR/hr)
1264		5.3	13
	1		

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

Notes

REPAD.03.11.00.01

L60668: Page 21 of 23

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60668

Date Received:

1/11/2007

Received By:

Sample Container Preservatio	

SAMPLE	CLIENT ID	R<2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0<2	T >12	N/A	RAD	ID
L60668-01	PZ-2		Υ	CONTROL CONTROL CONTROL	Y			-				
L60668-02	MH-10		Y		Υ							
L60668-03	MH-28		Y		Υ				<u> </u>			
_60668-04	MH-29	·	Y		Υ				 			
L60668-05	MH-30		Y		Υ							
L60668-06	PZ-8		Y		Υ							
L60668-07	BW-3		Y		Υ				<u> </u>			
	TB010307-04							<u> </u>	1	Χ		

Sample Container Preservation Legend

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
Ť	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
·Y	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs Reviewed B	v:	
Dampie IDS Reviewed D	y .	

P.O. Box 527, Green Valley, AZ 85622

ANALYTICAL REQUEST SHEET Chain of Custody PO# - 0J00XN

**************************************					Prospi	Preservatives	Constitution of the Consti	MARCHANICA AND THE CONTROL OF THE CO	AND DESCRIPTION OF THE PARTY OF	Field Data	THE PROPERTY OF THE PARTY OF TH	NAMES AND POST OFFICE AND PARTY.	A CONTRACTOR OF THE PERSONS ASSESSMENT	
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Lab Use				# of # of	HAS	130	Unpre	2	3	Š.		enementelistik	Analysis	Analysis Reguested
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	PZ-2	1/8/2007	11:58	8	=	=	2 2	6.66	5560	25.2	+		Ample	Ambient Suite
	MH-10	1/9/2007	13:45	80	-	=	2 5	6.70	1717	28.5		·	Ambie	Ambient Suite
	MH-28	1/9/2007	13:25	8		-	2 5	7.22	2690	25.8			Ambie	Ambient Suite
The state of the s	MH-29	1/9/2007	12:50	80	-		2 5	7.47	2600	25.8			Ambie	Ambient Suite
	MH-30	1/9/2007	9:44	82			2 5	7.33	2780	26.2			Ambie	Ambient Suite
	PZ-8	1/10/2007	9:40	ထ	-	-	2 5	6.60	985	21			Ambie	Ambient Suite
	BW-3	1/10/2007	9:03	80			2 5	7.18	3380	20.9			Ambie	Ambient Suite
			and the same of th											
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Sample Subr	Sample Submitted By: Billy Dorris	no de para minera de la compaño de para de la compaño de l			F1	Nephon	e No. 520	Telephone No. 520-648-8873	Land and the second second second	· vinney-paper-servine	E.	Fax No.	A THE REAL PROPERTY AND A STREET, AND A	
Report Resul	Report Results To: Billy Dorris	The second secon	THE PROPERTY LINES COLUMN TO THE PROPERTY OF T	* AND THE PARTY OF	FI.	elephon	e No. 520	Telephone No. 520-648-8873	A CHARLES OF THE CONTRACT OF T		T.	x No. 520	Fax No. 520-648-8608	A PART OF THE PART
Samples Sut	Samples Submitted on Ice: Yes) / No										<u></u>	boratory N	Laboratory Name and Address:	ddress:
Surrendered By:	BY: 15/18 2.8	bus	Received By:		KIN	1		Date:	701	Date: [1 1 0 7 Time: 10 3	707	ACZ	ACZ Laboratory	
Surrendered By:	By:	man da a a a a a a a a a a a a a a a a a	Received By:	سیدهای است. میشدهای است. است. است. است. است. است. است. است.)		Date:		Time:		304(30400 Downhill Drive	Drive
Comments/S	Comments/Special Instructions:	e de la companya de	All the shifted in the shift of	benne je unika Podjišterio čejma odnostorinoto.				e propinsi manja di madini di madi			ber den se de dissen. No	Stea	Steamboat Springs, Phone: 8003345493	Steamboat Springs, CO 80487 Phone: 8003345493
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February 05, 2007

Report to:

Ned Hall

Phelps Dodge Sierrita

P.O. Box 527 6200 W. Duval Mine Rd.

Green Valley, AZ 85622-0527

Bill to:

Accounts Payable

Phelps Dodge Sierrita

P.O. Box 2671

Phoenix, AZ 85002-2671

Project ID: OJ00XN ACZ Project ID: L60663

Ned Hall:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 11, 2007. This project has been assigned to ACZ's project number, L60663. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60663. 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 March 05, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

5. Habernahl

05/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-1

ACZ Sample ID:

L60663-06

Date Sampled:

01/10/07 08:20

Date Received:

01/11/07

Sample Matrix:

Ground Water

Field Data									
Parameter	EPA Method	Permit	Dira	ΧC	Units	MOL	POL	- Braite	Analysis
Conductivity (Field)	Field Measurement	1033			mS/cm	***************************************	270000000000000000000000000000000000000	01/10/07 8:20	bd
pH (Field)	Field Measurement	7.0			units			01/10/07 8:20	bd
Temperature (Field)	Field Measurement	25.1			C			01/10/07 8:20	bd
Metals Analysis									
Parameter	EPA Method	Rasult	Ona	ΧQ	Units	MOL	POL	Dena	Analysi
Calcium, dissolved	M200.7 ICP	188			mg/L	0.2	1	01/12/07 19:12	msh
Magnesium, dissolved	M200.7 ICP	42.7	- •		mg/L	0.2	1	01/12/07 19:12	msh
Potassium, dissolved	M200.7 ICP	9.6		*	mg/L	0.3	2	01/12/07 19:12	msh
Sodium, dissolved	M200.7 ICP	61.1			mg/L	0.3	2	01/12/07 19:12	msh
Wet Chemistry									
Parameter	EPA Nistined	Result		ΧO	Units	MDL	201	Date	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		134	+ 1	•	mg/L	2	20	01/19/07 0:00	cas
CaCO3									000
Carbonate as CaCO3	3		U		mg/L	2	20	01/19/07 0:00	cas
Hydroxide as CaCO3	}		· .U		mg/L	2	20	01/19/07 0:00	cas
Total Alkalinity		134			mg/L	2	20	01/19/07 0:00	cas
Cation-Anion Balance	Calculation			•					
Cation-Anion Balance		1.9			%			02/05/07 0:00	calc
Sum of Anions		15.2		-	meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		15.8			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	57		. *	mg/L	1	5	01/15/07 13:45	jlf
Fluoride	SM4500F-C	 0.3	В	*	mg/L	0.1	0.5	01/24/07 21:13	cas/cl
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.74		*	mg/L	0.02	0.1	01/17/07 21:24	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	1000			mg/L	10	20	01/11/07 16:27	lcp

520

959

1.04

mg/L

mg/L

10

10

50

50

01/11/07 16:23

02/05/07 0:00

02/05/07 0:00

seb

calc

calc

Arizona license number: AZ0102

SM4500 SO4-D

Calculation

Calculation

Sulfate

TDS (calculated)

measured/calculated).

TDS (ratio -

L60663: Page 12 of 32

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-2

Date Sampled:

01/10/07 08:05

Date Received:

01/11/07

Sample Matrix: Ground Water

Field Data									
Parameter	EPA Mesturd	Result	California	XΩ	Units	19121	FOL	Drite	Vitalijas i
Conductivity (Field)	Field Measurement	528			mS/cm			01/10/07 8:05	bd
pH (Field)	Field Measurement	6.9			units			01/10/07 8:05	bd
Temperature (Field)	Field Measurement	23.8			C			01/10/07 8:05	bd
Metals Analysis									
Parameter	EPA Method	Result	Distan	No.	Units	(115)	POL	Date	
Calcium, dissolved	M200.7 ICP	60.6			mg/L	0.2	1	01/12/07 19:16	msh
Magnesium, dissolved	M200.7 ICP	12.9			mg/L	0.2	1	01/12/07 19:16	msh
Potassium, dissolved	M200.7 ICP	5.5		*	mg/L	0.3	2	01/12/07 19:16	msh
Sodium, dissolved	M200.7 ICP	41.3			mg/L	0.3	2	01/12/07 19:16	msh
Wet Chemistry									
Parameter	EPA Mothod Company of the	Pesuli	Otto	XO	Units	MDL	POL	Dritte	
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		151			mg/L	2	20	01/19/07 0:00	cas
CaCO3									
Carbonate as CaCO			U		mg/L	2	20	01/19/07 0:00	cas
Hydroxide as CaCO3	3		· U		mg/L	2	20	01/19/07 0:00	cas
Total Alkalinity		151			mg/L	2	20	01/19/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	•	2.6			%			02/05/07 0:00	calc
Sum of Anions		5.7			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		6.0			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	15		*	mg/L	1	5	01/15/07 13:46	jlf
Fluoride	SM4500F-C	0.4	В	*	mg/L	0.1	0.5	01/26/07 13:54	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.31		*	mg/L	0.02	0.1	01/17/07 21:25	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	380			mg/L	10	20	01/12/07 9:49	lcp
Sulfate	SM4500 SO4-D	110			mg/L	10	50	01/11/07 16:27	seb
TDS (calculated)	Calculation	336			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.13						02/05/07 0:00	calc

Arizona license number: AZ0102

L60663: Page 13 of 32

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

DUP010907A

ACZ Sample ID:

L60663-08

Date Sampled:

01/09/07 00:00

Date Received:

01/11/07

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Method	Result Qual	XO Unite	MDL	POL	Dete	t nat vet
Calcium, dissolved	M200.7 ICP	555	mg/L	0.2	1	01/12/07 19:28	msh
Magnesium, dissolved	M200.7 ICP	97.8	mg/L	0.2	1	01/12/07 19:28	msh
Potassium, dissolved	M200.7 ICP	. 11.3	* mg/L	0.3	2	01/12/07 19:28	msh
Sodium, dissolved	M200.7 ICP	164	mg/L	0.3	2	01/12/07 19:28	msh

Wet Chemistry									
Pordinalar	EPA Method	Result	Qual	χQ	Units	MDL	POL	Date	Arralyst
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		160			mg/L	2	20	01/19/07 0:00	cas
Carbonate as CaCO	3		U		mg/L	2	20	01/19/07 0:00	cas
Hydroxide as CaCO	3		U		mg/L	2	20	01/19/07 0:00	cas
Total Alkalinity		160			mg/L	2	20	01/19/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	Э	1.8			%			02/05/07 0:00	calc
Sum of Anions		41.8			meq/L	0.1	0.5	02/05/07 0:00	calc
Sum of Cations		43.3			meq/L	0.1	0.5	02/05/07 0:00	calc
Chloride	M325.2 - Colorimetric	133		*	mg/L	5	30	01/15/07 13:57	jlf
Fluoride	SM4500F-C	0.2	В	*	mg/L	0.1	0.5	01/26/07 14:01	cas
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.66		*	mg/L	0.02	0.1	01/17/07 21:26	pj b
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2930			mg/L	10	20	01/12/07 9:51	lcp
Sulfate	SM4500 SO4-D	1660			mg/L	10	50	01/11/07 16:30	seb
TDS (calculated)	Calculation	2720			mg/L	10	50	02/05/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.08						02/05/07 0:00	calc

Arizona license number: AZ0102

L60663: Page 14 of 32



	Header Explanations			
Bat	ch A distinct set of san	nples analyzed at a specific time		
Fou	and Value of the QC Ty	pe of interest		
Lim	it Upper limit for RPD	, in %.		
Low	ver Lower Recovery Lir	nit, in % (except for LCSS, mg/Kg)		
MD	L Method Detection L	imit. Same as Minimum Reporting I	_imit. Allows for	r instrument and annual fluctuations.
PCI	N/SCN A number assigned	to reagents/standards to trace to th	e manufacturer'	s certificate of analysis
PQ	L Practical Quantitation	on Limit, typically 5 times the MDL.		
QC	True Value of the C	ontrol Sample or the amount added	to the Spike	
Red	Amount of the true	value or spike added recovered, in 9	6 (except for LC	CSS, mg/Kg)
RPI	D Relative Percent Di	fference, calculation used for Duplic	ate QC Types	
Upp	per Upper Recovery Lir	nit, in % (except for LCSS, mg/Kg)		
Sar	mple Value of the Sample	e of interest		
016.5	npie Types			
AS	Analytical Spike (Po	ost Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
AS		ost Digestion) Duplicate	LFB	Laboratory Fortified Blank
CC	B Continuing Calibrati	ion Blank	LFM	Laboratory Fortified Matrix
CC	V Continuing Calivation	on Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DU	P Sample Duplicate		LRB	Laboratory Reagent Blank
ICE	* *	ank	MS	Matrix Spike
ICV	/ Initial Calibration Ve	erification standard	MSD	Matrix Spike Duplicate
ICS	SAB Inter-element Corre	ection Standard - A plus B solutions	PBS	Prep Blank - Soil
LC	SS Laboratory Control	Sample - Soil	PBW	Prep Blank - Water
LC	SSD Laboratory Control	Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LC	SW Laboratory Control	Sample - Water	SDL	Serial Dilution
oli Sai	mple Type Explanations			
620300000000000000000000000000000000000	nks	Verifies that there is no or mini	mal contaminati	ion in the prep method or calibration procedure.
	ntrol Samples	Verifies the accuracy of the me		
	plicates	Verifies the precision of the ins	_	
	kes/Fortified Matrix	Determines sample matrix inte		
	indard	Verifies the validity of the calib		
000000000000000000000000000000000000000	ualifièrs (Qual)			
В	Analyte concentrati	on detected at a value between MD	L and PQL.	
Н	Analysis exceeded	method hold time. pH is a field test	with an immedi	iate hold time.
R	Poor spike recover	y accepted because the other spike	in the set fell w	ithin the given limits.
Т				ncentrations are less than 10x the MDL.
U	Analyte was analyz	ed for but not detected at the indica	ted MDL	
V	High blank data ac	cepted because sample concentration	on is 10 times hi	igher than blank concentration
W	Poor recovery for S	Silver quality control is accepted bec	ause Silver ofte	n precipitates with Chloride.
X	Quality control sam	ple is out of control.		
Z	Poor spike recover	y is accepted because sample conc	entration is four	times greater than spike concentration.
Sec.				
(1)		. Methods for Chemical Analysis of	Water and Was	tes. March 1983.
(2)		-		ances in Environmental Samples, August 1993.
(3)				onmental Samples - Supplement I, May 1994.
(5)		t Methods for Evaluating Solid Was		
(6)		for the Examination of Water and W		
***************************************		ed from raw data. Results may ven	slightly if the re	ounded values are used in the calculations.
(1)		Plant matrices for Inorganic analyses	T . T	
(2)	· · ·	r Inorganic analyses are reported or		
(3)				

REPIN03.11.00.01

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project ID: L60663

Alkalinity as Ca	CO3		SM2320B	- Titration				-				200 III A SUULIA MARANA	
AGZ IB	Type	Analyzed			Same	Found	100		Lower	Upper	RPD	Limit	Fire
WG219437													
WG219437LCSW2	LCSW	01/19/07 13:29	WC061230-1	820		819.7	mg/L	100	80	120			
L60663-01DUP	DUP	01/19/07 15:23			498	465.7	mg/L				6.7	20	
L60730-01DUP	DUP	01/19/07 16:54			239	239.3	mg/L				0.1	20	
WG219437LCSW5	LCSW	01/19/07 17:09	WC061230-1	820		829.9	mg/L	.101.2	80	120			
WG219437LCSW8	LCSW	01/19/07 17:40	WC061230-1	820		828.3	mg/L	101	80	120			
Aluminum, diss	olved		M200.7 IC	P						··· 8 - ··· · · · · · · · · · · · · · ·			THE PARTY OF THE P
A0Z(B)	Туре	Analyzed	PRAISE	DC .	Sample	Found	Units		557/2T	Doger	RPD	Limit	eral
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.935	mg/L	96.8	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.09	0.09			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	1		1.089	mg/L	108.9	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	1	U	1.089	mg/L	108.9	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	1	U	.925	mg/L	92.5	85	115	16.29	20	
L60663-07AS	AS	01/12/07 19;20	11070102-4	1	U	1.105	mg/L	110.5	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	1	Ú.	1.107	mg/L	110.7	85	. 115	0.18	20	
Antimony, disso	lved		M200.8 IC	P-MS									***************************************
ACZID	Ayes	Analyzed	PONISCH	oc.	Sample	Feend	Drifts	Person	LOVE		RIPID	Linea	777
WG219143													
WG219143ICV	ICV.	01/11/07 23:56	MS070108-2	.02		.02043	mg/L	102.2	90	110			
WG219143ICB	ICB	01/12/07 0:02				υ	mg/L		-0.0012	0.0012			
WG219143LFB	LFB	01/12/07 0:08	MS061218-3	.00625		.00636	mg/L	101.8	85	115			
L60615-03AS	AS	01/12/07 0:21	MS061218-3	.00625	.0006	.00661	mg/L	96.2	70	130			
L60615-03ASD	ASD	01/12/07 0:27	MS061218-3	.00625	.0006	.00656	mg/L	95.4	70	130	0.76	20	
L60663-06AS	AS	01/12/07 1:46	MS061218-3	.00625	U	.00593	mg/L	94.9	70	130			
L60663-06ASD	ASD	01/12/07 1:53	MS061218-3	.00625	U	.00602	mg/L	96.3	70	130	1.51	20	
WG219201													
WG219201ICV	ICV	01/13/07 1:02	MS070108-2	.02		.02061	mg/L	103.1	90	110			
WG219201ICB	ICB	01/13/07 1:07				.00048	mg/L		-0.0012	0.0012			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.00625		.00632	mg/L	101.1	85	115			
L60663-06AS	AS	01/13/07 2:31	MS061218-3	.00625	U	.00612	mg/L	97.9	70	130			
L60663-06ASD	ASD	01/13/07 2:37	MS061218-3	.00625	U	.00622	mg/L	99.5	70	130	1.62	20	
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.00625	U	.00664	mg/L	106.2	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.00625	U	.00659	mg/L	105.4	70	130	0.76	20	

REPIN.01.06.05.01

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Arsenic, dissol	ved		M200.8 IC	P-MS									
AGZ 10	1972	Anelyzzed			Sample		Units	Fire	Lower		RFB	Limit	Sural
WG219143													
WG219143ICV	ICV	01/11/07 23:56	MS070108-2	.05		.05203	mg/L	104.1	90	110			
WG219143ICB	ICB	01/12/07 0:02				U	mg/L		-0.0015	0.0015			
WG219143LFB	LFB	01/12/07 0:08	MS061218-3	.05		.04991	mg/L	99.8	85	115			
L60615-03AS	AS	01/12/07 0:21	MS061218-3	.05	.0007	.04958	mg/L	97.8	70	130			
L60615-03ASD	ASD	01/12/07 0:27	MS061218-3	.05	.0007	.05223	mg/L	103.1	70	130	5.21	20	
L60663-06AS	AS	01/12/07 1:46	MS061218-3	.05	.0068	.05775	mg/L	101.9	70	130			
L60663-06ASD	ASD	01/12/07 1:53	MS061218-3	.05	.0068	.05812	mg/L	102.6	70	130	0.64	20	
WG219201													•
WG219201ICV	ICV	01/13/07 1:02	MS070108-2	.05		.05204	mg/L	104.1	90	110			
WG219201ICB	ICB	01/13/07 1:07				Ü	mg/L		-0.0015	0.0015			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.05		.05195	mg/L	103.9	85	115			
L60663-06AS	AS	01/13/07 2:31	MS061218-3	.05	.0065	.05998	mg/L	107	70	130			
L60663-06ASD	ASD	01/13/07 2:37	MS061218-3	.05	.0065	.05922	mg/L	105.4	. 70	130	1.28	20	
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.05	.0076	.06114	mg/L	107.1	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.05	.0076	.06122	mg/L	107.2	70	130	0.13	20	
WG219245													
WG219245ICV	ICV	01/15/07 14:21	MS070108-2	.05		.05421	mg/L	108.4	90	110			
WG219245ICB	ICB	01/15/07 14:27				U	mg/L		-0.0015	0.0015			
WG219245LFB	LFB	01/15/07 14:32	MS061218-3	.05		.0513	mg/L	102.6	85	115			
L60616-02AS	AS	01/15/07 14:50	MS061218-3	.05	.0005	.05653	mg/L	112.1	70	130			
L60616-02ASD	ASD	01/15/07 14:55	MS061218-3	.05	.0005	.05753	mg/L	114.1	70	130	1.75	20	
Barium, dissolv	ed		M200.7 IC	Р									
	Type	Accessor	Presser	6.18	57,1111111				Louve		7177	1111	0.00
WG219145			•										
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		2.0988	mg/L	104.9	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.009	0.009			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.5163	mg/L	103.3	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	.5	.017	.5486	mg/L	106.3	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	.5	.017	.5454	mg/L	105.7	85	. 115	0.59	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	.025	.562	mg/L	107.4	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	.025	.565	mg/L	108	85	115	0.53	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

Beryllium, diss	olved		M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PONISON	ej.	Sample	Found	Units	Rec	Lower	Unper	RPD	Limit	Qual
WG219143													
WG219143ICV	ICV	01/11/07 23:56	MS070108-2	.05		.0501	mg/L	100.2	90	110			
WG219143ICB	ICB	01/12/07 0:02				U	mg/L		-0.0003	0.0003			
WG219143LFB	LFB	01/12/07 0:08	MS061218-3	.05		.04796	mg/L	95.9	85	115			
L60615-03AS	AS	01/12/07 0:21	MS061218-3	.05	U	.04712	mg/L	94.2	70	130			
L60615-03ASD	ASD	01/12/07 0:27	MS061218-3	.05	U	.04903	mg/L	98.1	70	130	3.97	20	
L60663-06AS	AS	01/12/07 1:46	MS061218-3	.05	U	.05208	mg/L	104.2	70	130			
L60663-06ASD	ASD	01/12/07 1:53	MS061218-3	.05	U	.05115	mg/L	102.3	70	130	1.8	20	
WG219201													
WG219201ICV	ICV	01/13/07 1:02	MS070108-2	.05		.04918	mg/L	98.4	90	110			
WG219201ICB	ICB	01/13/07 1:07.				U	mg/L		-0.0003	0.0003			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.05		.05009	mg/L	100.2	85	115			
L60663-06AS	AS	01/13/07 2:31	MS061218-3	.05	U	.053	mg/L	106	70	130			
L60663-06ASD	ASD	01/13/07 2:37	MS061218-3	.05	U	.0527	mg/L	105.4	70	130	0.57	20	
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.05	U	.05357	mg/L	107.1	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.05	Ų	.05317	mg/L	106.3	70	130	0.75	20	
Cadmium, diss	olved		M200.8 I	CP-MS									
	Type	Analyzed Normal	PCN	90	Sample	Falling		Rec	caver	Upper	HPD	Limit	0.081
WG219143													
WG219143ICV	ICV	01/11/07 23:56	MS070108-2	.05		.05045	mg/L	100.9	90	110			
WG219143ICB	ICB	01/12/07 0:02				U	mg/L		-0.0003	0.0003			
WG219143LFB	LFB	01/12/07 0:08	MS061218-3	.05		.04863	mg/L	97.3	85	115			
L60615-03AS	AS	01/12/07 0:21	MS061218-3	.05	.0009	.04738	mg/L	93	70	130			
L60615-03ASD	ASD	01/12/07 0:27	MS061218-3	.05	.0009	.04881	mg/L	95.8	70	130	2.97	20	
L60663-06AS	AS	01/12/07 1:46	MS061218-3	.05	U	.04816	mg/L	96.3	70	130			
L60663-06ASD	ASD	01/12/07 1:53	MS061218-3	.05	U	.04702	mg/L	94	70	130	2.4	20	
WG219201													
WG219201ICV	ICV	01/13/07 1:02	MS070108-2	.05		.05007	mg/L	100.1	90	110			
WG219201ICB	ICB	01/13/07 1:07				. U	mg/L		-0.0003	0.0003			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.05		.05019	mg/L	100.4	85	115			
L60663-06AS	AS	01/13/07 2:31	MS061218-3	.05	U	.05162	mg/L	103.2	7 0	130			
L60663-06ASD	ASD	01/13/07 2:37	MS061218-3	.05	U	.05076	mg/L	101.5	7 0	130	1.68	20	
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.05	U	.05122	mg/L	102.4	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.05	Ü	.05032	mg/L	100.6	70	130	1.77	20	
Calcium, disso	lved		M200.7 I	CP									
ACZ ID	Тутга	Armyzes	Fleggister)	6 (8	Sample	Found	Units	Rec	Lavinor	Upper	RPB	Limit	Qual
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	100		98.41	mg/L	98.4	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.6	0.6			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	67.95918		70.45	mg/L	103.7	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	67.95918	271	331.24	mg/L	88.6	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	67.95918	271.	338.68	mg/L	99.6	85	115	2.22	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	67.95918	60.6	132.03	mg/L	105.1	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	67.95918	60.6	130.86	mg/L	103.4	85	115	0.89	20	

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganie (C)C Summerry

ACZ Project ID: L60663

Phelps Dodge Sierrita

Project ID:	0	J00XN							,				
Chloride			M325.2	- Colorimetr	ic	ESSECULAR CONTROL CONTROL					na wasto da paga		
A67 D	Types			O.C.	Sample	Franci	Unite	Heat	Letter	Upper	7(1)	Limit	Direct
WG219236													
WG219236ICV	ICV	01/15/07 13:04	WI061113-3	55		58.1	mg/L	105.6	90	110			
WG219236ICB	ICB	01/15/07 13:05		•		1.7	mg/L	100.0	-3	3			
WG219236LFB1	LFB	01/15/07 13:06	WI061127-1	30		29.5	mg/L	98.3	90	110			
L60646-06AS	AS	01/15/07 13:34	WI061127-1	30	5	36.2	mg/L	104	90	110			
L60656-01DUP	DUP	01/15/07 13:36			6	5.8	mg/L				3.4	20	RA
WG219236LFB2	LFB	01/15/07 13:39	WI061127-1	30		29	mg/L	96.7	90	110			
Chromium, dis	solved		M200.7	ICP			***************************************						
A18-7/112	7.2		POMISON	QC	Samuel			Rec				1.900.6	Circal
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.929	mg/L	96.5	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L	55.5	-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.497	mg/L	99.4	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	.5	U	.498	mg/L	99.6	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	.5	U	.504	mg/L	100.8	85	115	1.2	20	
L60663-07AS	AS	-01/12/07 19:20	11070102-4	.5	U	.511	mg/L	102.2	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.516	mg/L	103.2	85	115	0.97	20	
Cobalt, dissolv	ed		M200.7	ICP	- Comment Line			*****************				****	1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874 - 1874
Avzijo	Types	Analyzat	Pierri Herri	OL.	Sample	Found	E PRIES		Long	10.70		177	- 1
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.896	mg/L	94.8	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.5	mg/L	100	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	.5	U	.493	mg/L	98.6	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	.5	U	.488	mg/L	97.6	85	115	1.02	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U,	.521	mg/L	104.2	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.518	mg/L	103.6	85	115	0.58	20	
Conductivity @	25C		M120.1	- Meter									
A572 B	15,62	Analyzai	PONSON	O.C.	Samo	Found	Dritts	Rep	or train			Lift	
WG219437													
WG219437PBW1	PBW	01/19/07 13:17				U	ımhos/cn		-10	10			
WG219437LCSW1	LCSW	01/19/07 13:19	PCN25346	1408.8		1462	ımhos/cn	103.8	80	120			
L60663-01DUP	DUP	01/19/07 15:23			1650	1633	ımhos/cn				1	20	
L60730-01DUP	DUP	01/19/07 16:54			557	554	ımhos/cn				0.5	20	
WG219437PBW2	PBW	01/19/07 16:56				U	ımhos/cn		-10	10			
WG219437LCSW4	LCSW	01/19/07 16:58	PCN25346	1408.8		1468	ımhos/cri	104.2	80	120			
11100101010													

1408.8

1463 imhos/cn 103.8

80

120

WG219437LCSW7 LCSW 01/19/07 17:29 PCN25346

Phelps Dodge Sierrita

Project ID:

Copper, dissol	ved		M200.7 I	CP									
ACZ ID	Type	Analyzed	PCNISCN	OG.	Sample	Found	Units	Rec	Lower	Upper	RPD	Lini	CHES
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.924	mg/L	96.2	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.502	mg/L	100.4	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	.5	υ	.514	mg/L	102.8	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	.5	U	.515	mg/L	103	85	115	0.19	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U	.518	mg/L	103.6	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.521	mg/L	104.2	85	115	0.58	20	
Cyanide, total			M335.4 -	Colorimetri	c w/ dist	illation			····				• .
\$C7.	Турю	Analyzed	PONSON	ejt.	Sample		dons		Lower	Lipper	RPD		Qual
WG219473													
WG219473ICV	ICV	01/20/07 20:52	WI070111-3	.3		.2949	mg/L	98.3	90	110			
WG219473ICB	ICB	01/20/07 20:53				U	mg/L		-0.015	0.015			
WG219474													
WG219474ICV	ICV	01/20/07 21:26	WI070111-3	.3		.2961	mg/L	98.7	90	110			
WG219474ICB	ICB	01/20/07 21:27				U	mg/L	00.1	-0.015	0.015			
WG219280LRB	LRB	01/20/07 21:27				. 0	mg/L		-0.015	0.015			
WG219280LFB	LFB	01/20/07 21:28	WI070111-7	.2		.1944	mg/L	97.2	90	110			
L60659-01DUP	DUP	01/20/07 21:30			U	U	mg/L				0	20	RA
L60663-01LFM	LFM	01/20/07 21:32	WI070111-7	.2	U	.2134	mg/L	106.7	90	110			
L60664-01DUP	DUP	01/20/07 21:43			U	.0076	mg/L				200	20	RA
L60668-01LFM	LFM	01/20/07 21:45	WI070111-7	.2	Ú	.2121	mg/L	106.1	90	110			
Fluoride			SM4500F	-C							······································		
A. 7 D	Mile	Analyzed	PONICON	ΟÜ	Sample	Found	Units	Rec	Lower	Upper	RIN	Latti	e la al
WG219596													
WG219596ICV	ICV	01/24/07 15:14	WC070118-1	1.996		2.09	mg/L	104.7	95	105			
WG219596ICB	ICB	01/24/07 15:19				U	mg/L		-0.3	0.3			
WG219596LFB1	LFB	01/24/07 15:25	WC061021-1	4.99902		5.18	mg/L	103.6	90	110			
WG219596LFB2	LFB	01/24/07 18:27	WC061021-1	4.99902		4.81	mg/L	96.2	90	110			
L60663-06AS	AS	01/24/07 21:20	WC061021-1	4.99902	.3	5.39	mg/L	101.8	85	115			
L60663-06DUP	DUP	01/24/07 21:27			.3	.38	mg/L				23.5	20	RA
WG219692													
WG219692ICV1	ICV	01/26/07 11:37	WC070126-1	1.996		2.08	mg/L	104.2	95	105			
WG219692ICB1	ICB	01/26/07 11:43				U	mg/L		-0.3	0.3			
WG219692LFB1	LFB	01/26/07 11:50	WC061021-1	4.99902		5.04	mg/L	100.8	90	110			
L60668-03AS	AS	01/26/07 14:37	WC061021-1	4.99902	.2	4.53	mg/L	86.6	85	115			
L60668-03DUP	DUP	01/26/07 14:44			.2	.3	mg/L				40	20	RA
WG219692LFB2	LFB	01/26/07 14:47	WC061021-1	4.99902		4.82	mg/L	96.4	90	110			

Phelps Dodge Sierrita

Project ID:

OJ00XN

Iron, dissolved	Kalidani Sirika Jaca		- M200.7 I	CP						**************************************			<u> </u>
ACZ ID	Bote	Analyzed		ale		F C L L L	Units	File	CONTO	Uniter	RPD	Limit	Chial
WG219275													
WG219275ICV	ICV	01/16/07 11:48	11061230-1	2		1.952	mg/L	97.6	95	105			
WG219275ICB	ICB	01/16/07 11:52				U	mg/L		-0.06	0.06			
WG219275LFB	LFB	01/16/07 12:05	11070102-4	1		.967	mg/L	96.7	85	115			
L60615-05AS	AS	01/16/07 12:16	11070102-4	1	U	1.025	mg/L	102.5	85	115			
L60615-05ASD	ASD	01/16/07 12:19	11070102-4	1	U	.992	mg/L	99.2	85	115	3.27	20	
L60663-06AS	AS	01/16/07 13:01	11070102-4	1 .	.18	1.162	mg/L	98.2	85	115			
L60663-06ASD	ASD	01/16/07 13:04	11070102-4	1	.18	1.141	mg/L	96.1	85	115	1.82	20	
Lead, dissolved			M200.8 K	CP-MS									
A07/10	Type	Amplyzed	PERMIN	26	Sample	Fourt		f er	Lower	Small	7(27)	Linte	Circl
WG219143													
WG219143ICV	ICV	01/11/07 23:56	MS070108-2	.05		.05122	mg/L	102.4	90	110			
WG219143ICB	ICB	01/12/07 0:02				U	mg/L		-0.0003	0.0003			
WG219143LFB	LFB	01/12/07 0:08	MS061218-3	.05		.04727	mg/L	94.5	85	115			
L60615-03AS	AS	01/12/07 0:21	MS061218-3	.05	.0002	.047	mg/L	93.6	70	130			
L60615-03ASD	ASD	01/12/07 0:27	MS061218-3	.05	.0002	.0487	mg/L	97	70	130	3.55	20	
L60663-06AS	AS	01/12/07 1:46	MS061218-3	.05	.0012	.05235	mg/L	102.3	70	130			
L60663-06ASD	ASD	01/12/07 1:53	MS061218-3	.05	.0012	.0517.	mg/L	101	70	130	1.25	20	
WG219201													
WG219201ICV	ICV	01/13/07 1:02	MS070108-2	.05		.05041	mg/L	100.8	90	110			
WG219201ICB	ICB	01/13/07 1:07				U	mg/L		-0.0003	0.0003			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.05		.04835	mg/L	96.7	85	115			
L60663-06AS	AS	01/13/07 2:31	MS061218-3	.05	.0013	.05265	mg/L	102.7	70	130			
L60663-06ASD	ASD	01/13/07 2:37	MS061218-3	.05	.0013	.0516	mg/L	100.6	70	130	2.01	20	
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.05	0003	.04898	mg/L	97.4	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.05	.0003	.04833	mg/L	96.1	70	130	1.34	20	
Magnesium, dis	solved		M200.7 I	CP									
ACZ ID	Type	And Trees	PONSON						Louis	i logar		Title	Our
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	100		96.17	mg/L	96.2	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.6	0.6			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	54.98614		56.35	mg/L	102.5	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	54.98614	54.1	109.93	mg/L	101.5	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	54.98614	54.1	111.14	mg/L	103.7	85	115	1.09	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	54.98614	12.9	72.37	mg/L	108.2	85	. 115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	54.98614	12.9	71.56	mg/L	106.7	85	115	1.13	20	

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Manganese, dis	solved		M200.7	ICP					N				
VZ D	Type	Analyzed	PONISON	Q.	Sample	Feams	l mile	Rec	Love	lipper	RPD		Dual
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.9127	mg/L	95.6	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.015	0.015			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.5087	mg/L	101.7	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	.5	, U	.5012	mg/L	100.2	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	.5	U	.5075	mg/L	101.5	85	115	1.25	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U	.5122	mg/L	102.4	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.515	mg/L	103	85	115	0.55	20	
Mercury, dissolv	/ed		M245.1	CVAA									· · · · · · · · · · · · · · · · · · ·
ACZ ID	Туре	Analyzed	PeNSON	GC.	Sample	Faund	Units	Rec	Lower	lipper ^a	RPD	TINE	Orgal
WG219230													
WG219230ICV	ICV	01/16/07 13:27	11061220-1	.00498		.00496	mg/L	99.6	95	105			
WG219230ICB	ICB	01/16/07 13:29				Ú	mg/L		-0.0002	0.0002			
WG219231													
WG219231LRB	LRB	01/16/07 15:03				U	mg/L		-0.00044	0.00044			
WG219231LFB	LFB	01/16/07 15:05	11070104-3	.002		.00212	mg/L	106	85	115			
L60668-07LFM	LFM	01/16/07.16:02.	11070104-3	.002	, - U	.0021	mg/L	105	85	115			
L60668-07LFMD	LFMD	01/16/07 16:04	11070104-3	.002	U	.00217	mg/L	108.5	85	115	3.28	20	
WG219411				en e									
WG219411ICV	ICV	01/22/07 16:31	11070115-2	.005		.00497	mg/L	99.4	95	105			
WG219411ICB	ICB	01/22/07 16:33				U	mg/L		-0.0002	0.0002			
WG219411LRB	LRB	01/22/07 16:36				U	mg/L		-0.00044	0.00044			
WG219411LFB	LFB	01/22/07 16:38	11070104-3	.002		.00198	mg/L	99	85	115			
L60630-02LFM	LFM	01/22/07 16:45	11070104-3	.002	U	.00194	mg/L	97	85	115			
L60630-02LFMD	LFMD	01/22/07 16:47	11070104-3	.002	Ū	.00196	mg/L	98	85	115	1.03	20	
Molybdenum, di	ssolved	ł	M200.7	ICP									
ACZID	Type	Analyzad	PONSON	0.0	Sample	Found		100	Loves	Uniter	PPD	Limit	Qual
WG219145													
WG219145ICV	ICV	01/12/07 17:55	II061230-1	2		1.986	mg/L	99.3	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.515	mg/L	103	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	.5	.03	.54	mg/L	102	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	.5	.03	.547	mg/L	103.4	85	115	1.29	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U	.54	mg/L	108	85	115			
L60663-07ASD	ASD	01/12/07 19:24	II070102-4	.5	U	.534	mg/L	106.8	85	115	1.12	20	

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MGZ19145 MGZ1	Otal
WG219145 CV ICV 01/12/07 17:55 II061230-1 2 1.896 mg/L 94.8 95 105 WG219145 CB ICB 01/12/07 17:59 U mg/L -0.03 0.03 WG219145 CB LFB 01/12/07 18:15 II070102-4 .5 .487 mg/L 97.4 85 115 IL60663-02AS AS 01/12/07 18:52 II070102-4 .5 U .484 mg/L 96.8 85 115 IL60663-02AS AS 01/12/07 18:56 II070102-4 .5 U .493 mg/L 98.6 85 115 IL60663-07AS AS 01/12/07 19:20 II070102-4 .5 U .496 mg/L 99.2 85 115 IL60663-07AS AS 01/12/07 19:24 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 II070102-4 .5 U .506 mg/L 98.7 90 110 II070102-4 .5 U .506 II	- Charact
WG219145ICB ICB 01/12/07 17:59 U mg/L -0.03 0.03	- Carel
WG219145LFB LFB 01/12/07 18:15 II070102-4 .5 .487 mg/L 97.4 85 115	Quel
L60663-02AS AS 01/12/07 18:52 II070102-4 .5 U .484 mg/L 96.8 85 115 L60663-02ASD ASD 01/12/07 18:56 II070102-4 .5 U .493 mg/L 98.6 85 115 1.84 20 L60663-07ASD ASD 01/12/07 19:24 II070102-4 .5 U .496 mg/L 99.2 85 115 L 20 Nitrate/Nitrite as N M353.2 - H2SCV4 preserved AGZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit WG219363 IV 01/17/07 18:29 WI061207-1 2.416 2.385 mg/L 98.7 90 110 WG219364 WG219364 WG219364 ICB 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90	- Δuel - ³
L60663-02ASD	Δuel
L60663-07AS	Description
L60663-07ASD ASD 01/12/07 19:24 II070102-4 .5 U .506 mg/L 101.2 85 115 2 20 Nitrate/Nitrite as N M353.2 - H2SO4 preserved AGZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit WG219363 WG219363ICW ICV 01/17/07 18:29 WI061207-1 2.416 2.385 mg/L 98.7 90 110 WG219364CB ICB 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90 110 WG219364ICB ICB 01/17/07 21:05 WI060906-4 2 2.012 mg/L 100.6 90 110 WG219364LFB1 LFB 01/17/07 21:08 WI060906-4 2 2.012 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2	Agrici
Nitrate/Nitrite as N	Quel
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit WG219363 WG219363ICV ICV 01/17/07 18:29 WI061207-1 2.416 2.385 mg/L 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 98.7 90 110 99 110 99 110 99 110 90 110 90 110 90 110 90 110 90 110 90 110 90 110 90 110 90 110 90 110 90 110<	Quel
WG219363 WG219363ICV ICV 01/17/07 18:29 WI061207-1 2.416 2.385 mg/L 98.7 90 110 WG219363ICB ICB 01/17/07 18:31 U mg/L -0.06 0.06 WG219364CV ICV 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90 110 WG219364ICB ICB 01/17/07 21:07 WI060906-4 2 2.012 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 106.8 90 110	Guel -
WG219363ICV ICV 01/17/07 18:29 WI061207-1 2.416 2.385 mg/L 98.7 90 110 WG219363ICB ICB 01/17/07 18:31 LEB 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90 110 WG219364ICV ICV 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90 110 WG219364ICB ICB 01/17/07 21:07 WI060906-4 2 2.012 mg/L 100.6 90 110 LEB 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 106.8 90 110	
WG219363ICB ICB 01/17/07 18:31 U mg/L -0.06 0.06 WG219364CV WG219364ICV ICV 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90 110 WG219364ICB ICB 01/17/07 21:07 U mg/L -0.06 0.06 WG219364LFB1 LFB 01/17/07 21:08 WI060906-4 2 2.012 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 106.8 90 110	
WG219364 WG219364ICV ICV 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90 110 WG219364ICB ICB 01/17/07 21:07 U U mg/L -0.06 0.06 WG219364LFB1 LFB 01/17/07 21:08 WI060906-4 2 2.012 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 106.8 90 110	
WG219364ICV ICV 01/17/07 21:05 WI061207-1 2.416 2.353 mg/L 97.4 90 110 WG219364ICB ICB 01/17/07 21:07 U mg/L -0.06 0.06 WG219364LFB1 LFB 01/17/07 21:08 WI060906-4 2 2.012 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 106.8 90 110	
WG219364ICB ICB 01/17/07 21:07 U mg/L -0.06 0.06 WG219364LFB1 LFB 01/17/07 21:08 WI060906-4 2 2.012 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 106.8 90 110	
WG219364LFB1 LFB 01/17/07 21:08 WI060906-4 2 2.012 mg/L 100.6 90 110 L60592-03AS AS 01/17/07 21:10 WI060906-4 2 U 2.136 mg/L 106.8 90 110	
L60592-03AS AS 01/17/07 21:10 W1060906-4 2 U 2.136 mg/L 106.8 90 110	
·	
L60659-01DUP DUP 01/17/07 21:13 .02 .029 mg/L 36.7 20	RA
WG219364LFB2 LFB 01/17/07 21:46 WI060906-4 2 1.994 mg/L 99.7 90 110	
pH (lab) M150.1 - Electrometric	
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit	Giri
WG219437	
WG219437LCSW3 LCSW 01/19/07 13:33 PCN25442 6 6.09 units 101.5 90 110	
L60663-01DUP DUP 01/19/07 15:23 7.9 7.86 units 0.5 20	
L60730-01DUP DUP 01/19/07 16:54 8.6 8.63 units 0.3 20	
WG219437LCSW6 LCSW 01/19/07 17:12 PCN25442 6 6.07 units 101.2 90 110	
WG219437LCSW9 LCSW 01/19/07 17:43 PCN25442 6 6.08 units 101.3 90 110	
Potassium, dissolved M200.7 ICP	
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit	Diff.
WG219145	
WG219145ICV ICV 01/12/07 17:55 II061230-1 20 20.3 mg/L 101.5 95 105	
WG219145ICB ICB 01/12/07 17:59 U mg/L -0.9 0.9	
WG219145LFB LFB 01/12/07 18:15 II070102-4 99.51014 105.44 mg/L 106 85 115	
L60663-02AS AS 01/12/07 18:52 II070102-4 99.51014 3.7 118.75 mg/L 115.6 85 115	M1
L60663-02ASD ASD 01/12/07 18:56 II070102-4 99.51014 3.7 119.9 mg/L 116.8 85 115 0.96 20	M1
L60663-07AS AS 01/12/07 19:20 II070102-4 99.51014 5.5 121.96 mg/L 117 85 115	M1
L60663-07ASD ASD 01/12/07 19:24 II070102-4 99.51014 5.5 120.43 mg/L 115.5 85 115 1.26 20	M1

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Residue, Filtera	ble (TD:	S) @180C	M160.1 -	Gravimetrio	C		3 22 23 14 12 7 7 13 13 E-1 24 13 13 E-1 24 13 E-1						SECTION AND ADDRESS OF THE SECTION ASSESSMENT
A GZ/4D	Type	Analyzed	PONSON	CIG	Same	Found	Units	Rec	Lower	Upper	FPD	Limit	Qual
WG219146													
WG219146PBW	PBW	01/11/07 16:00				U	mg/L		-20	20			
WG219146LCSW	LCSW	01/11/07 16:01	PCN26278	261		252	mg/L	96.6	80	120			
L60664-01DUP	DUP	01/11/07 16:29			2520	2570	mg/L				2	20	
WG219160													
WG219160PBW	PBW	01/12/07 9:35				U	mg/L		-20	20			
WG219160LCSW	LCSW	01/12/07 9:36	PCN26278	261		272	mg/L	104.2	80	120			
L60663-07DUP	DUP	01/12/07 9:50			380	386	mg/L				1.6	20	
L60668-07DUP	DUP	01/12/07 10:04			3820	3844	mg/L				0.6	20	
Selenium, disso	lved	The second second	M200.8 I	CP-MS									
ACZ IB	Terre	Analyzod	PONASON	2)6	Sample	FEATHER			ower	Upper	F (9/8)		Ottal
WG219143													
WG219143ICV	ICV	01/11/07 23:56	MS070108-2	.05		.05384	mg/L	107.7	90	110			
WG219143ICB	ICB	01/12/07 0:02				U	mg/L		-0.0003	0.0003			
WG219143LFB	LFB	01/12/07 0:08	MS061218-3	.05		.04888	mg/L	97.8	85	115			
L60615-03AS	AS	01/12/07 0:21	MS061218-3	.05	.0014	.05207	mg/L	101.3	70	130			
L60615-03ASD	ASD	01/12/07 0:27	MS061218-3	.05	.0014	.05391	mg/L	105	7 0	130	3.47	20	
L60663-06AS	AS	01/12/07 1:46	MS061218-3	.05	.001	.05615	mg/L	110.3	70	130			
L60663-06ASD	ASD	01/12/07 1:53	MS061218-3	.05	.001	.05534	mg/L	108.7	70	130	1.45	20	
WG219201													
WG219201ICV	ICV.	01/13/07 1:02	MS070108-2	.05		.05439	mg/L	108.8	90	110			
WG219201ICB	ICB	01/13/07 1:07				U	mg/L		-0.0003	0.0003			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.05		.05135	mg/L	102.7	85	115			
L60663-06AS	AS	01/13/07 2:31	MS061218-3	.05	.0011	.06048	mg/L	118.8	70	130			
L60663-06ASD	ASD	01/13/07 2:37	MS061218-3	.05	.0011	.05972	mg/L	117.2	70	130	1.26	20	
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.05	.0007	.06006	mg/L	118.7	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.05	.0007	.05898	mg/L	116.6	70	130	1.81	20	
Sodium, dissolv	ed		M200.7 I	CP	:								
A 072 ID	Ma	Apolyzou	PERMISSI	Ole	Sample		Units	P _E	Ower	Upper		Limit	Geal
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	100		99.82	mg/L	99.8	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.9	0.9			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	99.90786		104.26	mg/L	104.4	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	99.90786	136	237.68	mg/L	101.8	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	99.90786	136	241.68	mg/L	105.8	85	115	1.67	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	99.90786	41.3	150.82	mg/L	109.6	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	99.90786	41.3	149.41	mg/L	108.2	85	115	0.94	20	
Sulfate			SM4500	SO4-D									
A(874)[B)	Type	Assayzad	Problem	ΩC	Sample	Found	Units	Rec	Lover	Uager	FIPD	Limit	Qual
WG219141													
WG219141PBW	PBW	01/11/07 15:22				U	mg/L		-30	30			
WG219141LCSW	LCSW	01/11/07 15:25	WC061207-2	100		99	mg/L	99	80	120			
L60646-04DUP	DUP	01/11/07 15:47			20	20	mg/L				0	20	RA
L60663-08DUP	DUP	01/11/07 16:34			1660	1668	mg/L				0.5	20	

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Thallium, disso	ved		M200.8 IC	P-MS									
. 7213		100000000	100	O.C					Corre		1199	Limit	Line)
WG219143													
WG219143ICV	ICV	01/11/07 23:56	MS070108-2	.056		.05438	mg/L	97.1	90	110			
WG219143ICB	ICB	01/12/07 0:02				· U	mg/L		-0.0003	0.0003			
WG219143LFB	LFB	01/12/07 0:08	MS061218-3	.05		.04775	mg/L	95.5	85	115			
L60615-03AS	AS	01/12/07 0:21	MS061218-3	.05	.0002	.04821	mg/L	96	70	130			
L60615-03ASD	ASD	01/12/07 0:27	MS061218-3	.05	.0002	.04976	mg/L	99.1	70	130	3.16	20	
L60663-06AS	AS	01/12/07 1:46	MS061218-3	.05	U	.05193	mg/L	103.9	70	130			
L60663-06ASD	ASD	01/12/07 1:53	MS061218-3	.05	U	.05137	mg/L	102.7	70	130	1.08	20	
WG219201			• .					,					
WG219201ICV	ICV,	01/13/07 1:02	MS070108-2	.056	•	.05323	mg/L	95.1	90	110			
WG219201ICB	ICB	01/13/07 1:07				U	mg/L		-0.0003	0.0003			
WG219201LFB	LFB	01/13/07 1:13	MS061218-3	.05		.04837	mg/L	96.7	85	115			
L60663-06AS	AS	01/13/07 2:31	MS061218-3	.05	U	.05192	mg/L	103.8	70	130			
L60663-06ASD	ASD	01/13/07 2:37	MS061218-3	.05	U	.05111	mg/L	102.2	70	130	1.57	20	
L60663-07AS	AS	01/13/07 2:49	MS061218-3	.05	U	.04892	mg/L	97.8	70	130			
L60663-07ASD	ASD	01/13/07 2:55	MS061218-3	.05	U	.04842	mg/L	96.8	70	130	1.03	20	
Zinc, dissolved			M200.7 IC	P		· · · · · · · · · · · · · · · · · · ·							de principal gamenta de conserva de la cidado.
ACZ IB	11.2					F. 11	unite	Place	Love	Spire	r Pa		
WG219145													
WG219145ICV	ICV	01/12/07 17:55	11061230-1	2		1.917	mg/L	95.9	95	105			
WG219145ICB	ICB	01/12/07 17:59				U	mg/L		-0.03	0.03			
WG219145LFB	LFB	01/12/07 18:15	11070102-4	.5		.512	mg/L	102.4	85	115			
L60663-02AS	AS	01/12/07 18:52	11070102-4	.5	.05	.56	mg/L	102	85	115			
L60663-02ASD	ASD	01/12/07 18:56	11070102-4	.5	.05	.561	mg/L	102.2	85	115	0.18	20	
L60663-07AS	AS	01/12/07 19:20	11070102-4	.5	U	.551	mg/L	110.2	85	115			
L60663-07ASD	ASD	01/12/07 19:24	11070102-4	.5	U	.541	mg/L	108.2	85	115	1.83	20	

REPIN.01.06.05.01

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Inorganic Extended **Qualifier Report**

Phelps Dodge Sierrita

ACC	WORKNIER	PARAMETER	METHOD	QUAL DESCRIPTION
L60663-01	WG219145	Potassium, dissolved	M200.7 ICP	M1 Matrix spike recovery was high, the method control samp recovery was acceptable.
	WG219236	Chloride	M325.2 - Colorimetric	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219596	Fluoride	SM4500F-C	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219141	Sulfate	SM4500 SO4-D	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60663-02	WG219145	Potassium, dissolved	M200.7 ICP	M1 Matrix spike recovery was high, the method control samp recovery was acceptable.
	WG219236	Chloride	M325.2 - Colorimetric	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219596	Fluoride	SM4500F-C	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60663-03	WG219145	Potassium, dissolved	M200.7 ICP	M1 Matrix spike recovery was high, the method control samp recovery was acceptable.
	WG219236	Chloride	M325.2 - Colorimetric	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219596	Fluoride	SM4500F-C	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60663-04	WG219145	Potassium, dissolved	M200,7 ICP	M1 Matrix spike recovery was high, the method control samp recovery was acceptable.
	WG219236	Chloride	M325.2 - Colorimetric	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total	M335.4 - Colorimetric w/ distillation	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219596	Fluoride	SM4500F-C	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219146	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	ZO TDS concentration is based on a final residue greater tha 200 mg.

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

A CONTRACTOR	te or explain.	PARAMETER		METHOUS		DESCRIPTION
L60663-05	WG219145	Potassium, dissolved	-	M200,7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219236	Chloride		M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total		M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219596	Fluoride		SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N		M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60663-06	WG219145	Potassium, dissolved		M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219236	Chloride		M325.2 - Colorimetric	- RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total		M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219596	Fluoride		SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N		M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60663-07	WG219145	Potassium, dissolved		M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219236	Chloride		M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total		M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride		SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N		M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60663-08	WG219145	Potassium, dissolved	÷	M200.7 ICP	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219236	Chloride	-	M325.2 - Colorimetric	. RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219474	Cyanide, total		M335.4 - Colorimetric w/ distillation	, RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219692	Fluoride		SM4500F-C	.RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219364	Nitrate/Nitrite as N		M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60663-09	WG219474	Cyanide, total		M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60663

No certification qualifiers associated with this analysis

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60663

Date Received:

1/11/2007

Received By:

Date Printed:

1/11/2007

Rasanis Veniteauon

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	· NA
		X
X		
		X
Х		
Χ		
Χ		
. X		
Χ		
Χ		
		, X
Χ		
	X	
		X

Exceptions: If you answered no to any of the above questions, please describe

Sample #6 one of the three vials has headspace.

Contact (For any discrepancies, the client must be contacted)

The client was not contacted.

Shipping Container

p-12-12-12-12-12-12-12-12-12-12-12-12-12-	 ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Cooler Id	Temp (°C)	Rad (µR/hr)
1372	5.1	13
·		

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

REPAD.03.11.00.01

L60663: Page 30 of 32

Sample Receipt

Phelps Dodge Sierrita OJ00XN

ACZ Project ID:

L60663

Date Received:

1/11/2007

Received By:

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60663-01	MH-17		Y		Υ						-	
L60663-02	MH-18		Y		Y							
L60663-03	MH-21		Υ		Y							
L60663-04	MH-22		Y		Y							
L60663-05	MH-23		Y		Y							
L60663-06	IW-1		Y		Y							
L60663-07	IW-2		Y		Y							
L60663-08	DUP010907A		Y		Y					,		
L60663-09	TB010307-06									X		

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
Т	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By:		
-------------------------	--	--

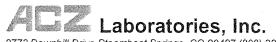
ANALYTICAL REQUEST SHEET
Chain of Custody
OH- OJ00XN

Page / of /

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Lab Use			<u> </u>		# o#			Unp			pri primari a	anonye kuliki	essan en			-	Analysis
Only	Location		Date	Time	Cont.	00100	6/1	~ ×	es.	F		Cond	Temp	_			Requested
	MH-17		1/8/2007	8:25	ထ		4	2	2	7.	7.16	1482	20.8				Ambient Suite
	MH-18		1/8/2007	10:55	ထ			7	2	7.	7.61	1983	22.9		+		Ambient Suite
	MH-21		1/8/2007	14:21	ထ			1 2	2	7.	7.38	2610	22			Ì	Ambient Suite
	MH-22		1/9/2007	11:05	- ω	-		1 2	rc.	ဖ	6.79	4540	22.8				Ambient Suite
	MH-23		1/9/2007	10:50	&		-	1 2	5	ဖ	6.43	3440	22.4				Ambient Suite
	IW-1		1/10/2007	8:20	80		<u></u>	1 2	5	ဖ	6.97	1033	25.1				Ambient Suite
	IW-2		1/10/2007	8:05	80	-	,	1 2	5	.	6.91	528	23.8				Ambient Suite
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Sample Submitted By: Billy Dorris		Telephone	Telephone No. 520-648-8873		Fax No.
Donnet Donnite To. Bills Porcie		Telenhone	Telenhone No. 520-648-8873		Fax No. 520-648-8608
Nepoli Results 10. Dilly Doills	والمنافة المنافة والمنافقة والمراجع والم والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراج				
Samples Submitted on Ice (Yes) / No			. 4	(Laboratory Name and Address:
Surrandered By: S. W. Surrandered By:	Received Bv.		Date:	(1) Time: N:23	ACZ Laboratory
Commission of the first of the	Donaived By:		Dafe.	Time:	30400 Downhill Drive
Suitelideled by:	received by.	a elim (di manasa attendi manasa più ambier parti en je epope in di tra di tra dell'anno della companione della	A A A A A A A A A A A A A A A A A A A	and the state of t	Steamboat Springs, CO 80487
Comments/Special Instructions:					Phone: 8003345493

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Revised Analytical Report

March 12, 2007

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bill Dorris Phelps Dodge Sierrita P.O. Box 527 6200 West Duval Mine Road Green Valley, AZ 85622-0527

Project ID: OJ00XN ACZ Project ID: L60872

Bill Dorris:

Enclosed are analytical reports for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 25, 2007. This project was assigned to ACZ's project number, L60872. Please reference this number in all future inquiries.

At the request of Phelps Dodge Sierrita, Inc. (PDSI), this laboratory report has been prepared to contain only information specific to samples and analytes identified by PDSI as evaluated pursuant to Mitigation Order No. P-500-06 with Arizona Department of Environmental Quality. Samples and analytes unrelated to the Mitigation Order, but which may be identified on the chain of custody and sample receipt, have been reported to PDSI in a separate report.

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60872. 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 the requirements of NELAC.

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

ACZ disposes of samples and sub-samples thirty days after the analytical results are reported to the client. That time frame has elapsed for this project. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years. Please notify your Project Manager if you have other needs.

If you have any questions, please contact your Project Manager or Customer Service Representative.

12/Mar/07

Sue Webber, Project Manager, has reviewed and approved this report in its entirety.





2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Case Narrative

Phelps Dodge Sierrita

March 12, 2007

Project ID: OJ00XN ACZ Project ID: L60872

Service Facilities

ACZ Laboratories, Inc. (ACZ) received 10 ground water samples from Phelps Dodge Sierrita on January 25, 2007. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L60872. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

This project has been revised to include a separate abbreviated list of analytes, per client request.

Holding Times

Any analyses not performed within EPA recommended holding times have been qualified with an "H" flag.

One Volatile hold time was missed. ACZ made sure it was just the trip blank. No significant impact would be expected.

Sample Analysis

These samples were analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures.

REPAD.03.06.05.01

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2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-22

ACZ Sample ID:

L60872-01

Date Sampled:

01/23/07 09:10

Date Received:

01/25/07

Sample Matrix:

Ground Water

Metal	ic	Ana	hiele
vieta	15	Alla	17515

Parameter	EPA Meshora	Result Qual XQ	Linits	MDL	POL	Date	
Calcium, dissolved	M200.7 ICP	530	mg/L	0.4	2	02/05/07 22:47	gme
Magnesium, dissolved	M200.7 ICP	84.8	mg/L	0.4	2	02/05/07 22:47	gme
Potassium, dissolved	M200.7 ICP	10.7	mg/L	0.6	3	02/05/07 22:47	gme
Sodium, dissolved	M200.7 ICP	199	mg/L	0.6	3	02/05/07 22:47	gme
Wet Chemistry							

Wet Chemistry								
Parameter	EPA Method	Result	Qual XQ	Uffic	MDL	POL	Date	
Alkalinity as CaCO3	SM2320B - Titration							
Bicarbonate as		147		mg/L	2	20	02/03/07 0:00	cas
CaCO3								
Carbonate as CaCO3			U	mg/L	. 2	20	02/03/07 0:00	cas
Hydroxide as CaCO3	3		U	mg/L	2	20	02/03/07 0:00	cas
Total Alkalinity		147		mg/l	2	20	02/03/07 0:00	cas
Cation-Anion Balance	Calculation							
Cation-Anion Balance	•	1.1		%			02/22/07 0:00	calc
Sum of Anions		41.6		meq/L	0.1	0.5	02/22/07 0:00	calc
Sum of Cations		42.5		meq/L	0.1	0.5	02/22/07 0:00	calc
Chloride	M325.2 - Colorimetric	136	*	mg/L	4	20	02/02/07 22:55	pjb
Fluoride	SM4500F-C	0.7	*	mg/L	0.1	0.5	02/15/07 23:36	cas/cl
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	0.92		mg/L	0.02	0.1	02/03/07 22:38	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2860		mg/L	10	20	01/30/07 9:49	lcp
Sulfate	SM4500 SO4-D	1660		mg/L	10	50	02/05/07 17:06	Icp
TDS (calculated)	Calculation	2710		mg/L	10	50	02/22/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.06					02/22/07 0:00	calc

Arizona license number: AZ0102

L60872: Page 3 of 27

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-13B

ACZ Sample ID:

L60872-02

Date Sampled:

01/24/07 12:15

Date Received:

01/25/07

Sample Matrix: Ground Water

Metals Analysis

Parameter	EPA Mothod	Result Qual XQ	Units	MDL	POL	Date	Analyst
Calcium, dissolved	M200.7 ICP	385	mg/L	0.4	2	02/05/07 22:51	gme
Magnesium, dissolved	M200.7 ICP	55.1	mg/L	0.4	2	02/05/07 22:51	gme
Potassium, dissolved	M200.7 ICP	10.8	mg/L	0.6	3	02/05/07 22:51	gme
Sodium, dissolved	M200.7 ICP	124	mg/L	0.6	3	02/05/07 22:51	gme
Wet Chemistry Parameter	EPA Method	Result Qual XQ	Unite	, jā L	- 01_	Date /	Ni aliyesi

Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00 02/22/07 0:00	wet Chemistry								
Bicarbonate as CaCO3	Parameter	EPA Method	Result	Open M	Units	MDL	POL	Date	Analyst
CaCO3 Carbonate as CaCO3 Hydroxide as CaCO3 Total Alkalinity 96 mg/L Cation-Anion Balance Cation-Anion Balance Cation-Anion Balance Sum of Anions Sum of Cations Chloride M325.2 - Colorimetric Fluoride SM4500F-C Nitrate/Nitrite as N M353.2 - H2SO4 preserved M160.1 - Gravimetric CDS (alculated) TDS (calculated) Calculation U mg/L 2 20 02/03/07 0:00 Mg/L 2 20 02/03/07 0:00 Mg/L 2 20 02/02/07 0:00 Mg/L 2 0.1 0.5 02/02/07 0:00 Mg/L 0.1 0.5 02/02/07 0:00 Mg/L 0.1 0.5 02/03/07 0:00 Mg/L 0.02 0.1 02/03/07 0:00 Mg/L 0.02 0.1 02/03/07 0:00 Mg/L 0.02 02/03/07 0:00 Mg/L 0.02 02/03/07 0:00 Mg/L 0.02 02/03/07 0:00 Mg/L 0.02 02/03/07 0:00 Mg/L 0.03 02/02/07 0:00 Mg/L 0.04 02/03/07 0:00 Mg/L 0.05 02/02/07 0:00	Alkalinity as CaCO3	SM2320B - Titration							20 000000000000000000000000000000000000
Hydroxide as CaCO3			96		mg/L	2	.20	02/03/07 0:00	cas
Total Alkalinity 96 mg/L 2 20 02/03/07 0:00 Cation-Anion Balance Calculation -0.3 % 02/22/07 0:00 00 Sum of Anions 29.7 meq/L 0.1 0.5 02/22/07 0:00 00 Sum of Cations 29.5 meq/L 0.1 0.5 02/22/07 0:00 00 Chloride M325.2 - Colorimetric 168 * mg/L 5 30 02/02/07 22:56 00 Fluoride SM4500F-C 0.3 B * mg/L 0.1 0.5 02/16/07 0:18 00 Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 00 Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (rat	Carbonate as CaCO3			U	mg/L	2	20	02/03/07 0:00	cas
Cation-Anion Balance Calculation Cation-Anion Balance -0.3 % 02/22/07 0:00 Sum of Anions 29.7 meq/L 0.1 0.5 02/22/07 0:00 Sum of Cations 29.5 meq/L 0.1 0.5 02/22/07 0:00 Chloride M325.2 - Colorimetric 168 * mg/L 5 30 02/02/07 22:56 Fluoride SM4500F-C 0.3 B * mg/L 0.1 0.5 02/16/07 0:18 0.00 Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00 02/22/07 0:00	Hydroxide as CaCO3			U	mg/L	2	20	02/03/07 0:00	cas
Cation-Anion Balance -0.3 % 02/22/07 0:00 Sum of Anions 29.7 meq/L 0.1 0.5 02/22/07 0:00 Sum of Cations 29.5 meq/L 0.1 0.5 02/22/07 0:00 Chloride M325.2 - Colorimetric 168 * mg/L 5 30 02/02/07 22:56 Fluoride SM4500F-C 0.3 B * mg/L 0.1 0.5 02/16/07 0:18 0.00 Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00 02/22/07 0:00	Total Alkalinity		- 96		mg/L	2	20	02/03/07 0:00	cas
Sum of Anions 29.7 meq/L 0.1 0.5 02/22/07 0:00 Sum of Cations 29.5 meq/L 0.1 0.5 02/22/07 0:00 Chloride M325.2 - Colorimetric 168 * mg/L 5 30 02/02/07 22:56 Fluoride SM4500F-C 0.3 B * mg/L 0.1 0.5 02/16/07 0:18 0.00 Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00 02/22/07 0:00	Cation-Anion Balance	Calculation							
Sum of Cations 29.5 meq/L 0.1 0.5 02/22/07 0:00 Chloride M325.2 - Colorimetric 168 * mg/L 5 30 02/02/07 22:56 Fluoride SM4500F-C 0.3 B * mg/L 0.1 0.5 02/16/07 0:18 Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00 02/22/07 0:00	Cation-Anion Balance		-0.3		%			02/22/07 0:00	calc
Chloride M325.2 - Colorimetric 168 * mg/L 5 30 02/02/07 22:56 Fluoride SM4500F-C 0.3 B * mg/L 0.1 0.5 02/16/07 0:18 0 Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 Residue, Filterable (TDS) @180C Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06	Sum of Anions		29.7		meq/L	0.1	0.5	02/22/07 0:00	calc
Fluoride	Sum of Cations		29.5		meq/L	0.1	0.5	02/22/07 0:00	calc
Nitrate/Nitrite as N M353.2 - H2SO4 preserved 1.60 mg/L 0.02 0.1 02/03/07 22:39 Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00 02/22/07 0:00	Chloride	M325.2 - Colorimetric	168	*	mg/L	5	30	02/02/07 22:56	pjb
Residue, Filterable (TDS) @180C M160.1 - Gravimetric 2020 mg/L 10 20 01/30/07 9:50 Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00	Fluoride	SM4500F-C	0.3	В *	mg/L	0.1	0.5	02/16/07 0:18	cas/cl
(TDS) @180C Sulfate SM4500 SO4-D 1100 mg/L 10 50 02/05/07 17:08 TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.60		mg/L	0.02	0.1	02/03/07 22:39	pjb
TDS (calculated) Calculation 1900 mg/L 10 50 02/22/07 0:00 TDS (ratio - Calculation 1.06 02/22/07 0:00		M160.1 - Gravimetric	2020	•	mg/L	10	20	01/30/07 9:50	lcp
TDS (ratio - Calculation 1.06 02/22/07 0:00	Sulfate	SM4500 SO4-D	1100		mg/L	10	50	02/05/07 17:08	lcp
0.00	TDS (calculated)	Calculation	1900		mg/L	10	50	02/22/07 0:00	calc
measured/carculated)	TDS (ratio - measured/calculated)	Calculation	1.06					02/22/07 0:00	calc

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-13A

ACZ Sample ID:

L60872-03

Date Sampled:

01/24/07 11:00

Date Received:

01/25/07

Sample Matrix: Ground Water

gme

Metais Analysis						
arameter	EPA Method	Result Qual XQ	Units	MDL	Fal	Date
Calcium, dissolved	M200.7 ICP	524	mg/L	0.4	2	02/05/07 22:55
Magnesium, dissolved	M200.7 ICP	102	mg/L	0.4	2	02/05/07 22:55

/07 22:55 gme Potassium, dissolved M200.7 ICP 14.4 mg/L 0.6 3 02/05/07 22:55 gme Sodium, dissolved M200.7 ICP 173 mg/L 0.6 3 02/05/07 22:55 gme

Wet Chemistry									
Caramater	EPA Method	Result	Qual	1.0	Britis	MO L	FOL	Date	701
Alkalinity as CaCO3	SM2320B - Titration							**************************************	001 000(0000000000000000000000000000000
Bicarbonate as		115			mg/L	2	20	02/03/07 0:00	cas
CaCO3									
Carbonate as CaCO3	3		U		mg/L	2	20	02/03/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	2	20	02/03/07 0:00	cas
Total Alkalinity		115			mg/L	2	20	02/03/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-0.2			%			02/22/07 0:00	calc
Sum of Anions		42.8			meq/L	0.1	0.5	02/22/07 0:00	calc
Sum of Cations		42.6			meq/L	0.1	0.5	02/22/07 0:00	calc
Chloride	M325.2 - Colorimetric	172		*	mg/L	5	30	02/02/07 22:57	pjb
Fluoride	SM4500F-C	0.3	В	*	mg/L	0.1	0.5	02/15/07 23:43	cas/c1
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.24			mg/L	0.02	0.1	02/03/07 22:40	pjb
Residue, Filterable	M160.1 - Gravimetric	2900			mg/L	10	20	01/30/07 9:52	lcp
(TDS) @180C									
Sulfate	SM4500 SO4-D	1700			mg/L	10	50	02/05/07 17:10	lcp
TDS (calculated)	Calculation	2750			mg/L	10	50	02/22/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.05						02/22/07 0:00	calc

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-2

ACZ Sample ID:

L60872-04

Date Sampled:

01/23/07 08:05

Date Received:

01/25/07

Sample Matrix:

Ground Water

Metals	Anal	lysis
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Parameter	EPA Method	Result Qual X	C Units	MDL	POL	Date	Analys:
Calcium, dissolved	M200.7 ICP	53.6	mg/L	0.2	1	02/05/07 22:59	gme
Magnesium, dissolved	M200.7 ICP	6.2	mg/L	0.2	1	02/05/07 22:59	gme
Potassium, dissolved	M200.7 ICP	3.2	mg/L	0.3	2	02/05/07 22:59	gme
Sodium, dissolved	M200.7 ICP	53.4	mg/L	0.3	2	02/05/07 22:59	gme

Wet Chemistry									
Parameter	EPA Method	Result	Qual	ΧO	Units	MDL	POL	Date	Amalysi
Alkalinity as CaCO3	SM2320B - Titration							***************************************	
Bicarbonate as CaCO3		148			mg/L	2	20	02/06/07 0:00	cas
Carbonate as CaCO3	3	2	В		mg/L -	2	20	02/06/07 0:00	cas
Hydroxide as CaCO3			U		mg/L	.2	20	02/06/07 0:00	cas
Total Alkalinity		150		*	mg/L	2	20	02/06/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		4.7			%			02/22/07 0:00	calc
Sum of Anions		5.1			meq/L	0.1	0.5	02/22/07 0:00	calc
Sum of Cations		5.6			meq/L	0.1	0.5	02/22/07 0:00	calc
Chloride	M325.2 - Colorimetric	15		*	mg/L	1	5	02/02/07 22:42	pjb
Fluoride	SM4500F-C	0.6		*	mg/L	0.1	0.5	02/14/07 16:29	cas/cf
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.42			mg/L	0.02	0.1	02/03/07 22:42	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	320			mg/L	10	20	01/30/07 9:53	lcp
Sulfate	SM4500 SO4-D	80			mg/L	10	50	02/05/07 17:12	lcp
TDS (calculated)	Calculation	303			mg/L	10	50	02/22/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.06						02/22/07 0:00	calc

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-3

ACZ Sample ID:

L60872-05

Date Sampled:

01/23/07 09:45

Date Received:

01/25/07

Sample Matrix: Ground Water

						HALLOW CONTROL OF THE PARTY OF			
Metals Analysis				Santa e e e e e e e e e e e e e e e e e e e			*************		
Parameter	EPA Method	Result	Qual	310	Units	MDL	201	Della	
Calcium, dissolved	M200.7 ICP	49.3			mg/L	0.2	1	02/05/07 23:03	gme
Magnesium, dissolved	M200.7 ICP	5.4			mg/L	0.2	1	02/05/07 23:03	gme
Potassium, dissolved	M200.7 ICP	3.1			mg/L	0.3	2	02/05/07 23:03	gme
Sodium, dissolved	M200.7 ICP	54.7			mg/L	0.3	2	02/05/07 23:03	gme
Wet Chemistry									
Porrameter	EPA Method	Result		χū	Units	MIM	TO.	Date	A Table S
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as		150			mg/L	2	20	02/06/07 0:00	cas
CaCO3	7	-	Б.				0.0	00100107.0.00	
Carbonate as CaCO		5	В		mg/L	2	20	02/06/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	02/06/07 0:00	cas
Total Alkalinity		155		*	mg/L	2	20	02/06/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		1.9			%			02/22/07 0:00	calc
Sum of Anions		5.2			meq/L	0.1	0.5	02/22/07 0:00	calc
Sum of Cations		5.4			meq/L	0.1	0.5	02/22/07 0:00	calc
Chloride	M325.2 - Colorimetric	14		*	mg/L	1	5	02/02/07 22:43	pjb
Fluoride	SM4500F-C	0.7		*	mg/L	0.1	0.5	02/14/07 16:36	cas/cf
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.55			mg/L	0.02	0.1	02/03/07 22:43	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	310			mg/L	10	20	01/30/07 9:54	lcp
Sulfate	SM4500 SO4-D	80			mg/L	10	50	02/05/07 17:14	lcp
TDS (calculated)	Calculation	302			mg/L	10	50	02/22/07 0:00	calc
TDS (ratio -	Calculation	1.03						02/22/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

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2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

IW-23

ACZ Sample ID:

L60872-06

Date Sampled:

01/23/07 09:20

Date Received:

01/25/07

Sample Matrix:

Ground Water

Parameter	EPA Method	Result Qual X	Links 1	MDL	POL	Desta	Analyst
Calcium, dissolved	M200.7 ICP	537	mg/L	0.4	2	02/05/07 23:07	gme
Magnesium, dissolved	M200.7 ICP	102	mg/L	0.4	2	02/05/07 23:07	gme
Potassium, dissolved	M200.7 ICP	9.9	mg/L	0.6	3	02/05/07 23:07	gme
Sodium, dissolved	M200.7 ICP	174	mg/L	0.6	3	02/05/07 23:07	gme
Wet Chemistry							

Wet Chemistry									
Parameter	EPA Method	Result	Oual	ΧQ	Units	MDL	POL	Date	Analysi
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		159			mg/L	2	20	02/06/07 0:00	cas
Carbonate as CaCO	3		U		mg/L	2	20	02/06/07 0:00	cas
Hydroxide as CaCO	3		U		mg/L	2	20	02/06/07 0:00	cas
Total Alkalinity		159		*	mg/L	2	20	02/06/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance	•	1.4			%			02/22/07 0:00	calc
Sum of Anions		41.9			meq/L	0.1	0.5	02/22/07 0:00	calc
Sum of Cations		43.1			meq/L	0.1	0.5	02/22/07 0:00	calc
Chloride	M325.2 - Colorimetric	153		*	mg/L	5	30	02/02/07 22:58	pjb
Fluoride	SM4500F-C	0.4	В	*	mg/L	0.1	0.5	02/14/07 16:43	cas/cf
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.18			mg/L	0.02	0.1	02/03/07 22:44	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	2830			mg/L	10	20	01/30/07 9:56	lcp
Sulfate	SM4500 SO4-D	1640			mg/L	10	50	02/05/07 17:16	lcp
TDS (calculated)	Calculation	2710			mg/L	10	50	02/22/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.04						02/22/07 0:00	calc

Arizona license number: AZ0102

L60872: Page 8 of 27

2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Inorganic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

MH-13C

ACZ Sample ID: L60872-08

Date Sampled:

01/24/07 10:20

Date Received:

01/25/07

Sample Matrix: Ground Water

Μ	e	a	S	Α	n	а	У	S	S
200000	SCC00				200		, in		

Metals Allalysis										
Parameter	EST A Experiment	Po	ent	Gueil	(0)	all the second	MDL	FOL	Drite	
Calcium, dissolved	M200.7 ICP	1.	4.7			mg/L	0.2	1 .	02/05/07 23:15	gme
Magnesium, dissolved	M200.7 ICP	. 1	.1			mg/L	0.2	1	02/05/07 23:15	gme
Potassium, dissolved	M200.7 ICP	2	2.7			mg/L	0.3	2	02/05/07 23:15	gme
Sodium, dissolved	M200.7 ICP	9	6.2			mg/L	0.3	2	02/05/07 23:15	gme
Wet Chemistry										
	EPA Method	t c	SHIF	6		THE ST	MOL	F	1981/0	
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	18 -			mg/L	2	20	02/06/07 0:00	cas
Carbonate as CaCO3			13	В		mg/L	2	20	02/06/07 0:00	cas
Hydroxide as CaCO3				U		mg/L	2	20	02/06/07 0:00	cas
Total Alkalinity		1	32		*	mg/L	2	20	02/06/07 0:00	cas
Cation-Anion Balance	Calculation									
Cation-Anion Balance		1	0.			%			02/22/07 0:00	calc
Sum of Anions			5.0			meq/L	0.1	0.5	02/22/07 0:00	calc
Sum of Cations		5	5.1			meq/L	0.1	0.5	02/22/07 0:00	calc
Chloride	M325.2 - Colorimetric	•	10		*	mg/L	1	5	02/02/07 22:45	pjb
Fluoride	SM4500F-C	1	.4		*	mg/L	0.1	0.5	02/14/07 16:57	cas/ci
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	d		U		mg/L	0.02	0.1	02/03/07 22:47	pjb
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	3	00			mg/L	10	20	01/30/07 9:59	lcp
Sulfate	SM4500 SO4-D	1	00			mg/L	10	50	02/05/07 17:22	lcp
TDS (calculated)	Calculation	3	10			mg/L	10	50	02/22/07 0:00	calc
TDS (ratio -	Calculation	0	.97						02/22/07 0:00	calc

Arizona license number: AZ0102

measured/calculated)

L60872: Page 9 of 27

Inorganic Reference

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Report Hea	der 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. Allows for instrument and annual fluctuations.
PCN/SC	
PQL	Practical Quantitation Limit, typically 5 times the MDL.
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest
S. Sample	Types
_	

QC Sample Types	
AS Analytical Spike (Post Digestion) LCSWD Lai	boratory Control Sample - Water Duplicate
ASD Analytical Spike (Post Digestion) Duplicate LFB Lat	boratory Fortified Blank
CCB Continuing Calibration Blank LFM Lal	boratory Fortified Matrix
CCV Continuing Calivation Verification standard LFMD Lat	boratory Fortified Matrix Duplicate
DUP Sample Duplicate LRB Lat	boratory Reagent Blank
ICB Initial Calibration Blank MS Ma	atrix Spike
ICV Initial Calibration Verification standard MSD Ma	atrix Spike Duplicate
ICSAB Inter-element Correction Standard - A plus B solutions PBS Pre	ep Blank - Soil
LCSS Laboratory Control Sample - Soil PBW Pre	ep Blank - Water
LCSSD Laboratory Control Sample - Soil Duplicate PQV Pra	actical Quantitation Verification standard
LCSW Laboratory Control Sample - Water SDL Se	rial Dilution

oc sam		

Blanks

Verifies that there is no or minimal contamination in the prep method or calibration procedure.

Control Samples

Verifies the accuracy of the method, including the prep procedure.

Duplicates

Verifies the precision of the instrument and/or method.

Spikes/Fortified Matrix

Determines sample matrix interferences, if any.

Standard

Verifies the validity of the calibration.

At 7 Qualifiers (Qual)

- B Analyte concentration detected at a value between MDL and PQL.
- H Analysis exceeded method hold time. pH is a field test with an immediate hold time.
- U Analyte was analyzed for but not detected at the indicated MDL

Matheway Reference

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples Supplement I, May 1994.
- (5) EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1996.
- (6) Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (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.

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Alkalinity as Ca	CO3		SM2320B	- Titration				and the second s					
A GIZ 118	Topic		5 (4) 15 (6)	(0)	Sample	CHIG	Janes 1		Levice			-	Chief
WG220001													
WG220001LCSW2	LCSW	02/03/07 16:56	WC070127-6	820		822.3	mg/L	100.3	80	120			
WG220001LCSW5	LCSW	02/03/07 19:49	WC070127-6	820		829.2	mg/L	101.1	80	120			
L60872-01DUP	DUP	02/03/07 21:17			147	141.5	mg/L				3.8	20	
L60943-04DUP WG220001LCSW8	DUP LCSW	02/03/07 22:41 02/03/07 22:54	WC070127-6	820	28	28.1 832.7	mg/L mg/L	101.5	80	120	0.4	20	
WG220090	20011	02/00/07 22:04	***************************************	020		002.7	mg/L	101.5	00	120			
WG220090LCSW2	LCSW	02/06/07 18:38	WC070127-6	820		828.4	mg/L	101	80	120			
WG220090LCSW5	LCSW	02/06/07 20:18	WC070127-6	820		830.9	mg/L	101.3	80	120			
L60822-09DUP	DUP	02/06/07 22:18			U	U	mg/L				0.	20	RA
WG220090LCSW8	LCSW	02/06/07 22:31	WC070127-6	820		831.6	mg/L	101.4	80	120			
Aluminum, diss			M200.7 IC	;P									
ACZ II	, pe	100	#019 5 51		Samile		arate			I manife			0.091
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.95	mg/L	97.5	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.09	0.09			
WG220054LFB L60850-05AS	LFB AS	02/05/07 21:24	11070119-5	1	4.1	.991	mg/L	99.1	85	115			
L60850-05ASD	ASD	02/05/07 22:28 02/05/07 22:31	II070119-5 II070119-5	1	U	1.043 1.058	mg/L mg/L	104.3 105.8	85 85	115 115	1.43	20	
WG220540	,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•		1.000	mg/ L	100.0	00	110	1.40	20	
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		1.948	mg/L	97.4	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.09	0.09			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	. 1		1.037	mg/L	103.7	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	5	U	4.87	mg/L	97.4	85	115			
L60872-07ASD	ASD	02)16/07 14:03	11070215-2	5	U	5.13	mg/L	102.6	85	115	5.2	20	
Antimony, disso	olved		M200.8 IC										A4-000000000000000000000000000000000000
ACZ ID		Analyzed			Samele	Petri		Rec	Late	Light			
WG219772													
WG219772ICV	ICV	01/29/07 21:47	MS070108-2	.02		.02051	mg/L	102.6	90	110			
WG219772ICB	ICB	01/29/07 21:52				U	mg/L		-0.0012	0.0012			
WG219772LFB L60857-04AS	LFB AS	01/29/07 21:58 01/29/07 23:28	MS061218-3 MS061218-3	.00625 .00625	U	.00686	mg/L	109.8	85 7 0	115			
L60857-04ASD	ASD	01/29/07 23:34	MS061218-3	.00625	U	.00627	mg/L mg/L	100.3 97.4	7 0 7 0	130 130	2.91	20	
Arsenic, dissolv	ed		M200.8 IC	P-MS									THE DAY WHEN THE PROPERTY OF THE PERSON NAMED IN THE PERSON NAMED
		Arrayzas		8)0	Samole	TO LITTLE	E TELES	P. a.c.	1.200(2)	District	1.71	Limit	6.00
WG219772					-				and the second second				
WG219772ICV	ICV	01/29/07 21:47	MS070108-2	.05		.05196	mg/L	103.9	90	110			
WG219772ICB	ICB	01/29/07 21:52				U	mg/L		-0.0015	0.0015			
WG219772LFB	LFB	01/29/07 21:58	MS061218-3	.05		.05184	mg/L	103.7	85	115			
L60857-04AS	AS	01/29/07 23:28	MS061218-3	.05	U	.05271	mg/L	105.4	70	130			
L60857-04ASD	ASD	01/29/07 23:34	MS061218-3	.05	U	.05103	mg/L	102.1	70 	130	3.24	20	

Phelps Dodge Sierrita

Project ID:

OJ00XN

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CZ	Project	ID:	L60872
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Barium, dissolv	/ed		M200.7 I	CP									
ACZ ID	Type	Analyzed	PENISON	ē¢	Sample	Found	Units	Rec	Lower	Upper	P/P/D	Limit	Ched
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		2.0524	mg/L	102.6	95	105			
WG220054ICB	ICB	02/05/07 21:07				U.	mg/L		-0.009	0.009			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	.5		.5194	mg/L	103.9	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	.5	.009	.5313	mg/L	104.5	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	.009	.5437	mg/L	106.9	85	115	2.31	20	
Beryllium, diss	olved		M200.8 I	CP-MS									
A07 ID	ура	Arrest Vicini	PCM/SCN	Olt	Sample	control	11115	Rec	Lower	l pyser	RPT		Olea
WG219772									-				
WG219772ICV	ICV	01/29/07 21:47	MS070108-2	.05		.05056	mg/L	101.1	90	110			
WG219772ICB	ICB	01/29/07 21:52				U	mg/L		-0.0003	0.0003			
WG219772LFB	LFB	01/29/07 21:58	MS061218-3	.05		.05229	mg/L	104.6	85	115			
L60857-04AS	AS	01/29/07 23:28	MS061218-3	.05	U	.05401	mg/L	108	70	130			
L60857-04ASD	ASD	01/29/07 23:34	MS061218-3	.05	U	.05134	mg/L	102.7	70	130	5.07	20	
Cadmium, diss	olved		M200.8 I	CP-MS			······································						
ANZIB III	Type	Artefyzat		9)6	Sample	Forms			Love	Upper	11111		Const
WG219772						,							
WG219772ICV	ICV	01/29/07 21:47	MS070108-2	.05		.05128	mg/L	102.6	90	110			
WG219772ICB	ICB	01/29/07 21:52				U	mg/L		-0.0003	0.0003			
WG219772LFB	LFB	01/29/07 21:58	MS061218-3	.05		.05197	mg/L	103.9	85	115			
L60857-04AS	AS	01/29/07 23:28	MS061218-3	.05	U,	.05274	mg/L	105.5	7 0	130			
L60857-04ASD	ASD	01/29/07 23:34	MS061218-3	.05	U	.05045	mg/L	100.9	70	130	4.44	20	
Calcium, dissol	lved		M200.7 I	CP				······································					·····
Acz (b	Type	Analyzasi	POMESON	OC.	Sample	Franci	Links	Per	Languer	Ligiter		Limit	Sual
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	100		97.93	mg/L	97.9	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.6	0.6			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	67.95918		67.67	mg/L	99.6	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	67.95918	3.9	75.57	mg/L	105.5	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	67.95918	3.9	76.17	mg/L	106.3	85	115	0.79	20	
WG220540													
WG220540ICV	ICV	02/16/07 12:56	11070116-1	100		99.58	mg/L	99.6	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.6	0.6			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	67.95918		69.22	mg/L	101.9	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	339.7959	627	948.9	mg/L	94.7	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	339.7959	627	955	mg/L	96.5	85	115	0.64	20	

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

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	ACZ	Project	ID:	L60872
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Chloride			M325.2 -	Colorimetri	С								,
10.77 B	Type	Analyzed	FONSION	6[8	5 1719	Profes	l mile		100701	linner		THE R	Cural
WG219994													
WG219994ICV	ICV	02/02/07 22:03	WI061113-3	55		56.4	mg/L	102.5	90	110			
WG219994ICB	ICB	02/02/07 22:04				U	mg/L		-3	3			
WG219994LFB1	LFB	02/02/07 22:05	WI061127-1	30		31.6	mg/L	105.3	90	110			
WG219994LFB2	LFB	02/02/07 22:32	WI061127-1	30		33.1	mg/L	110.3	.90	110			
L60867-01AS	AS	02/02/07 22:34	WI061127-1	30	4	35.4	mg/L	104.7	90	110			
L60867-02DUP	DUP	02/02/07 22:36			5	4.5	mg/L				10.5	20	RA
Chromium, diss	solved		M200.7 I	CP									
A (7) 5	Type	Trivil vzeri	PERMIT	ale	Sample	Found	Jan 185	Rec	Lower	Upper	RPD	Limit	Great
WG220054						•							
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.948	mg/L	97.4	95	105			
WG220054ICB	ICB	02/05/07 21:07				.012	mg/L		-0.03	0.03			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	.5		.513	mg/L	102.6	85	115			
L60850-05AS	A\$	02/05/07 22:28	11070119-5	.5	U	.529	mg/L	105.8	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	U	.531	mg/L	106.2	.85	115	0.38	20	
WG220540													
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		1.969	mg/L	98.5	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.03	0.03			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	.5		.497	mg/L	99.4	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	2.5	U	2.377	mg/L	95.1	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	2.5	U	2.367	mg/L	94.7	85	115	0.42	.20	
Cobalt, dissolv	ed		M200.7 I	CP									
AoZ ID	Type	Analyzed	PONSON	6)6	Sample	Found	Units	Rec	Lewier	Logis		Land	One
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.945	mg/L	97.3	95	105	•		
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.03	0.03			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	.5		.511	mg/L	102.2	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	.5	U	.521	mg/L	104.2	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	U	.533	mg/L	106.6	85	115	2.28	20	
WG220540													
WG220540ICV	ICV,	02/16/07 12:56	11070116-1	2		1.937	mg/L	96.9	95	105			~
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.03	0.03			*
WG220540LFB	LFB	02/16/07 13:14	11070215-2	.5		.497	mg/L	99.4	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	2.5	U ·	2.393	mg/L	95.7	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	2.5	U	2.384	mg/L	95.4	85	115	0.38	20	

Inorganic QC Summary

Phelps Dodge Sierrita

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Conductivity @	25C		M120.1	- Meter									
(47)	Types			êjc.		Franci	Light		l over	Spen	7,27		2,000
WG220001													
WG220001PBW1	PBW	02/03/07 16:43				. U	ımhos/cn		-10	10			
WG220001LCSW1	LCSW	02/03/07 16:45	PCN26468	1408.8		1479	umhos/cn	105	80	120			
WG220001PBW2	PBW	02/03/07 19:37				1.7	umhos/cn		-10	10			
WG220001LCSW4	LCSW	02/03/07 19:38	PCN26468	1408.8		1458	umhos/cn	103.5	80	120			
L60872-01DUP	DUP	02/03/07 21:17			3240	3240	umhos/cn				0	20	
L60943-04DUP	DUP	02/03/07 22:41			790	787	umhos/cn				0.4	20	
WG220001LCSW7	LCSW	02/03/07 22:43	PCN26468	1408.8		1458	umhos/cn	103.5	80	120			
WG220090													
WG220090PBW1	PBW	02/06/07 18:25				U.	ımhos/cn		-10	10			
WG220090LCSW1	LCSW	02/06/07 18:26	PCN26468	1408.8		1491	umhos/cn	105.8	80	120			
WG220090PBW2	PBW	02/06/07 20:06				1.4	umhos/cn		-10	10			
WG220090LCSW4	LCSW	02/06/07 20:08	PCN26468	1408.8		1486	umhos/cn	105.5	80	120			
L60822-09DUP	DUP	02/06/07 22:18			1650	1645	umhos/cn				0.3	20	
WG220090LCSW7	LCSW	02/06/07 22:20	PCN26468	1408.8		1480	umhos/cn	105.1	80	120			
Copper, dissolv	ed .		M200.7 I	CP		· · · · · · · · · · · · · · · · · · ·		*****					······································
ACZ(b)	771-2	Arrahyzer	FCNESCH	CC	50000	FORES				Lipper		1.11	Dem
WG220054											***************************************		
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.97	mg/L	98.5	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.03	0.03			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	.5		.523	mg/L	104.6	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	.5	.06	.583	mg/L	104.6	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	.06	.598	mg/L	107.6	85	115	2.54	20	
WG220540													
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		1.929	mg/L	96.5	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.03	0.03			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	.5		.495	mg/L	99	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	2.5	U	2.435	mg/L	97.4	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	2.5	U	2.431	mg/L	97.2	85	115	0.16	20	

Inorganic QC Summany

Phelps Dodge Sierrita

Project ID:

Cyanide, total			M335.4 -	Colorimetr	ic w/ disti	llation							
ACZ 11	Type	Atralyzad	PeniseN	οrc	Sample	Found	leits	Rec	Cores	Upper	RPB	Limit	- Smal
WG219916													
WG219916ICV	ICV	02/01/07 13:44	WI070126-3	.3		.3087	mg/L	102.9	90	110			
WG219916ICB	ICB	02/01/07 13:44				U	mg/L		-0.015	0.015			
WG219804LRB	LRB	02/01/07 13:46				U	mg/L		-0.015	0.015			
WG219804LFB	LFB	02/01/07 13:47	WI070126-7	.2		.1832	mg/L	91.6	90	110			
L60845-08DUP	DUP	02/01/07 14:01			.218	.1872	mg/L				15.2	20	
WG219916ICV1	ICV	02/01/07 14:47	WI070126-3	.3		.3015	mg/L	100.5	90	110			
WG219916ICB1	ICB	02/01/07 14:47				U	mg/L		-0.015	0.015			
L60845-09LFM	LFM	02/01/07 14:56	WI070126-7	.2	.28	.551	mg/L	135.5	90	110			M1
WG220246									•				
WG220246ICV	ICV	02/08/07 18:34	WI070126-3	.3		.2971	mg/L	99	90	110			
WG220246ICB	ICB	02/08/07 18:35				U	mg/L		-0.015	0.015			
WG220247													
WG220247ICV	ICV	02/08/07 19:20	WI070126-3	.3		.301	mg/L	100.3	90	110			
WG220247ICB	ICB	02/08/07 19:21				U	mg/L		-0.015	0.015			
WG220194LRB	LRB	02/08/07 19:22				U.	mg/L		-0.015	0.015			
WG220194LFB	LFB	02/08/07 19:23	WI070126-7	.2		.2176	mg/L	108.8	90	110			
L60872-02DUP	DUP	02/08/07 19:27			U	U	mg/L				0	20	RA
L60872-03LFM	LFM	02/08/07 19:28	WI070126-7	.2	.015	.2384	mg/L	111.7	90	110			. M1
L60874-02DUP	DUP	02/08/07 19:37			.068	.0726	mg/L				6.5	20	
L60885-01LFM	LFM	02/08/07 19:39	WI070126-7	.2	.029	.2151	mg/L	93.1	90	110			
Fluoride			SM4500F	C									
	Type	American	PENISEN	O.C.		Source	Units		Lower	i jugar	RPD	in.	euai
WG220368													
WG220368ICV	ICV	02/14/07 14:42	WC070213-2	1.996		2.03	mg/L	101.7	95	105			
WG220368ICB	ICB	02/14/07 14:49				U	mg/L		-0.3	0.3			
WG220368LFB1	LFB	02/14/07 14:56	WC070213-5	5		5:26	mg/L	105.2	90	110			
L60912-01AS	AS	02/14/07 17:47	WC070213-5	5	3.4	7	mg/L	72	85	115			. M2
L60912-01DUP	DUP	02/14/07 17:54			3.4	3.34	mg/L				1.8	20	
WG220368LFB2	LFB	02/14/07 17:57	WC070213-5	5		5.14	mg/L	102.8	90	110			
WG220511													
WG220511ICV	ICV	02/15/07 18:42	WC070213-2	1.996		1.99	mg/L	99.7	95	105			
WG220511ICB	ICB	02/15/07 18:49				.15	mg/L		-0.3	0.3			
WG220511LFB1	LFB	02/15/07 19:03	WC070213-5	5		4.81	mg/L	96.2	90	110			
WG220511LFB2	LFB	02/15/07 22:27	WC070213-5	5		4.76	mg/L	95.2	90	110			
L60872-03AS	AS	02/15/07 23:50	WC070213-5	5	.3	4.97	mg/L	93.4	85	115			
L60872-03DUP	DUP	02/15/07 23:57			.3	.42	mg/L				33.3	20	RA

Inorganie QC Summary

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		Haratelesi errenga-seriapangungung	KERIORIAN STRUCTURE IN THE REAL PROPERTY.	NAS POSTANA PROPERTY	THE WHITE OF STREET		lastical Nacional Section						
Iron, dissolved			M200.7 I	CP									
AOZ(Is)	Fype	Aughzed	T of 17 Sec. N	alt	Sample	5-11-1	linits	Rec		lastor	FIFT		Otel
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.966	mg/L	98.3	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.06	0.06			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	. 1		1.033	mg/L	103.3	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	1	.04	1.082	mg/L	104.2	. 85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	1	.04	1:106	mg/L	106.6	85	115	2.19	20	
WG220540			•										
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		1.956	mg/L	97.8	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.06	0.06			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	1		1.02	mg/L	102	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	5 .	3.5	7.9	mg/L	88	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	5	3.5	7.83	mg/L	86.6	85	115	0.89	20	
Lead, dissolved			M200.8 I	CP-MS									
AC7 (I)	Topic	Anzilyzof	penson	60	Sample		l Files		Lower	l program	RPD	Estable	Diret
WG219823													
WG219823ICV	ICV	01/30/07 20:34	MS070108-2	.05		.05317	mg/L	106.3	90 -	110			
WG219823ICB	ICB	01/30/07 20:40				U	mg/L		-0.0003	0.0003			
WG219823LFB	LFB	01/30/07 20:46	MS061218-3	.05		.05059	mg/L	101.2	85	115			
L60798-01AS	AS	01/30/07 20:57	MS061218-3	.05	.001	.0489	mg/L	95.8	70	130			
L60798-01ASD	ASD	01/30/07 21:03	MS061218-3	.05	.001	.04716	mg/L	92.3	70	130	3.62	20	
L60877-01AS	AS	01/30/07 23:10	MS061218-3	.05	.0002	.04836	mg/L	96.3	70	130			
L60877-01ASD	ASD	01/30/07 23:16	MS061218-3	.05	.0002	.04857	mg/L	96.7	70	130	0.43	20	
WG219907													
WG219907ICV	ICV	02/02/07 11:19	MS070108-2	.05		.05425	mg/L	108.5	90	110			
WG219907ICB	ICB	02/02/07 11:25				U	mg/L		-0.0003	0.0003			
WG219907LFB	LFB	02/02/07 11:31	MS061218-3	.05		.05067	mg/L	101.3	85	115			
L60861-11AS	AS	02/02/07 13:07	MS061218-3	.05	.0012	.0509	mg/L	99.4	70	130			
L60861-11ASD	ASD	02/02/07 13:13	MS061218-3	.05	.0012	.05094	mg/L	99.5	70	130	80.0	20	
Magnesium, dis			M200.7 I	CP		00000 0				***************************************		erosznomunu zan	
	Topie	Analyzed			Carrelle					ppes	TEPO	Limit	disal
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	100		96.41	mg/L	96.4	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.6	0.6			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	54.98614		54.81	mg/L	99.7	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	54.98614	U	57.76	mg/L	105	85	115			
L60850-05ASD	ASD	02/05/07 22:31	II070119-5	54.98614	U	58.31	mg/L	106	85	115	0.95	20	
WG220540													
WG220540ICV	ICV	02/16/07 12:56	11070116-1	100		96.2	mg/L	96.2	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.6	0.6			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	54.98614		54.66	mg/L	99.4	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	274.9307	187	448.9	mg/L	95.3	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	274.9307	187	453.6	mg/L	97	85	115	1.04	20	

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Manganese, diss	solved		M200.7	ICP			Managara da						
A1072/1D	Type	Analyzed			Sample	FERRE		Her	Lower	Septem		Land	erm)
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.9363	mg/L	96.8	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.015	0.015			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	.5		.5114	mg/L	102.3	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	.5	U	.52	mg/L	104	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	U	.5329	mg/L	106.6	85	115	2.45	20	
WG220540													
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		1.9807	mg/L	99	95	105			
WG220540ICB	ICB	02/16/07 12:59				·U	mg/L		-0.015	0.015			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	.5		.5095	mg/L	101.9	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	2.5	.14	2.576	mg/L	97.4	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	2.5	.14	2.557	mg/L	96.7	85	115	0.74	20	
Mercury, dissolv	red		M245.1	CVAA		was a same a					·		
ACZ ID		Analyzed	proven		3.78		l in its	Fixe	1.000		150	Limit	Chart
WG219897													
WG219897ICV	ICV	02/03/07 11:35	11070201-1	.005		.00487	mg/L	97.4	95	105			
WG219897ICB	ICB	02/03/07 11:37				U	mg/L		-0.0002	0.0002			
WG219898													
WG219898ICV	ICV	02/03/07 12:58	11070201-1	.005		.00485	mg/L	97	95	105			
WG219898ICB	ICB	02/03/07 13:01				U	mg/L		-0.0002	0.0002			
WG219898LRB	LRB	02/03/07 13:03				U	mg/L		-0.00044	0.00044			
WG219898LFB	LFB	02/03/07 13:05	11070202-3	.002		.00183	mg/L	91.5	85	115			
L60872-01LFM	LFM	02/03/07 13:22	11070202-3	.002	U	.00194	mg/L	97	85	115			
L60872-01LFMD	LFMD	02/03/07 13:29	11070202-3	.002	U	.00198	mg/L	99	85	115	2.04	20	
L60872-05LFM	LFM	02/03/07 13:40	11070202-3	.002	U	.00191	mg/L	95.5	85	115			
L60872-05LFMD	LFMD	02/03/07 13:42	11070202-3	.002	U	.00206	mg/L	103	85	115	7.56	20	
Molybdenum, di	ssolved	d	M200.7	ICP								***************************************	
	Type	Africa Product	PENSO		Samuel	ellerin	Lines			doper	777		2.11
WG220054													
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.994	mg/L	99.7	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.03	0.03			
WG220054LFB	LFB	02/05/07 21:24	11070119-5	.5		.5	mg/L	100	85	115			
L60850-05AS	AS	02/05/07 22:28	11070119-5	.5	.02	.535	mg/L	103	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	.02	.534	mg/L	102.8	85	115	0.19	20	
WG220540													
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		2.029	mg/L	101.5	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.03	0.03			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	.5		.504	mg/L	100.8	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	2.5	U	2.459	mg/L	98.4	85	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	2.5	U	2.534	mg/L	101.4	85	115	3	20	

Inorganic QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Nickel, dissolve	d		M200.7 I	CP									
6.67 Ta	Type	Analyzed	Page 1985 Ball			Found	ilmis		Lower	1000		L in sit	Residence
WG220054													
WG220054ICV	ICV	02/05/07 21:03	II070116-1	2		1.946	mg/L	97.3	95	105			
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.03	0.03			
WG220054LFB	LFB	02/05/07 21:24	II070119-5	.5		.513	mg/L	102.6	85	115			
L60850-05AS	AS	02/05/07 22:28	II070119-5	.5	U	.517	mg/L	103.4	85	115			
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	· U	.527	mg/L	105.4	85	115	1.92	20	
WG220540													
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		1.945	mg/L	97.3	95	105			
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.03	0.03			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	.5		.489	mg/L	97.8	85	115			
L60872-07AS	AS	02/16/07 13:59	11070215-2	2.5	U	2.36	mg/L	94.4	85 .	115			
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	2.5	U	2.327	mg/L	93.1	85	115	1.41	20	
Nitrate/Nitrite as	5 N		M353.2 -	H2SO4 pi	reserved				·				WHO are a second to the second
ACZ 18	159.0	Analyzed	PERMIT	OC	Sample	Stomad	Units		Lower	lagen		Limit	166
WG220006	*												
WG220006ICV	ICV	02/03/07 20:07	WI061207-1	2.416		2.377	mg/L	98.4	90	110			
WG220006ICB	ICB	02/03/07 20:08				U	mg/L		-0.06	0.06			
WG220007													
WG220007ICV	ICV	02/03/07 21:07	WI061207-1	2.416		2.275	mg/L	94.2	90	110			
WG220007ICB	ICB	02/03/07 21:09				U	mg/L		-0.06	0.06			
WG220007LFB1	LFB	02/03/07 21:10	WI060906-4	2		1.828	mg/L	91.4	90	110			
WG220007LFB2	LFB	02/03/07 21:48	WI060906-4	2		1.9	mg/L	95	90	110			
L60861-09AS	AS	02/03/07 21:51	WI060906-4	2	1.1	3.065	mg/L	98.3	90	110			
L60861-10DUP	DUP	02/03/07 21:53			1	.973	mg/L				2.7	20	
WG220007ICV1	ICV	02/03/07 22:35	WI061207-1	2.416		2.473	mg/L	102.4	90	110			
WG220007ICB1	ICB	02/03/07 22:37				U	mg/L		-0.06	0.06			
pH (lab)		-	M150.1 -	Electrome	etric			***************************************				***************************************	
ACZ ID	17.5	Analyzot		O.C.	Sample	- Corne	Links.		Lover	Marcon	2.21		Onal
WG220001													
WG220001LCSW3	LCSW	02/03/07 16:59	PCN25442	6		6.05	units	100.8	90	110			
WG220001LCSW6	LCSW	02/03/07 19:52	PCN25442	6		6.07	units	101.2	90	110			
L60872-01DUP	DUP	02/03/07 21:17			7.9	7.91	units				0.1	20	
L60943-04DUP	DUP	02/03/07 22:41			7.7	7.68	units				0.3	20	
WG220001LCSW9	LCSW		PCN25442	6		6.08	units	101.3	90	110	5.0		
WG220090													
WG220090LCSW3	LCSW	02/06/07 18:41	PCN25442	6		6.05	units	100.8	90	110			
WG220090LCSW6	LCSW	02/06/07 20:21	PCN25442	6		6.05	units	100.8	90	110			
L60822-09DUP	DUP	02/06/07 22:18		-	3.7	3.65	units				1.4	20	
WG220090LCSW9	LCSW	02/06/07 22:34	PCN25442	6		6.06	units	101	90	110			

Inorganic QC Summary

ACZ Project ID: L60872

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

otassium, diss	solved		M200.7 I	CP									
C7 ID	Type	Analyzed		QI.	Sample	Found	Units	fac	cover	Umper	RPD	100	6), 12
NG220054													
VG220054ICV	ICV	02/05/07 21:03	11070116-1	20		19.88	mg/L	99.4	95	105			
VG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.9	0.9			
VG220054LFB	LFB	02/05/07 21:24	11070119-5	99.51014		101.26	mg/L	101.8	85	115			
.60850-05AS	AS	02/05/07 22:28	11070119-5	99.51014	1	106.11	mg/L	105.6	85	115			
.60850-05ASD	ASD	02/05/07 22:31	11070119-5	99.51014	1	106.18	mg/L	105.7	85	115	0.07	20	
WG220540													
VG220540ICV	ICV	02/16/07 12:56	11070116-1	20		20.84	mg/L	104.2	95	105			
VG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.9	0.9			
WG220540LFB	LFB	02/16/07 13:14	11070215-2	99.51014		105.39	mg/L	105.9	85	115			
.60872-07AS	AS	02/16/07 13:59	11070215-2	497.5507	12	532.2	mg/L	104.6	85	115			
.60872-07ASD	ASD	02/16/07 14:03	11070215-2	497.5507	12	543.9	mg/L	106.9	85	115	2.17	20	
Residue, Filtera	ble (TDS	S) @180C	M160.1 -	Gravimetrio									**********
(CZ 13)	Type	A 1			Saltania	Found	Units	Rec	Levie	Upper	717	Limit	E.
NG219796													
VG219796PBW	PBW	01/30/07 9:30				U	mg/L		-20	20			
WG219796LCSW	LCSW	01/30/07 9:31	PCN26282	261		274	mg/L	105	80	120			
-60872-06DUP	DUP	01/30/07 9:57			2830	2914	mg/L				2.9	20	
Selenium, disso	lved		M200.8 I	CP-MS			· · · · · · · · · · · · · · · · · · ·				·	***************************************	
ACZ 10	Type	Anaryzed	PONSON	ΩC		Ferni	Units	Rec	Latin	Upper	RPD	I m	One
NG219772													
WG219772ICV	ICV	01/29/07 21:47	MS070108-2	.05		.05381	mg/L	107.6	90	110			
WG219772ICB	ICB	01/29/07 21:52				.00011	mg/L		-0.0003	0.0003			
WG219772LFB	LFB	01/29/07 21:58	MS061218-3	.05		.05161	mg/L	103.2	85	115			
.60857-04AS	AS	01/29/07 23:28	MS061218-3	.05	U	.0607	mg/L	121.4	70	130			
.60857-04ASD	ASD	01/29/07 23:34	MS061218-3	.05	U	.0546	mg/L	109.2	70	130	10.58	20	
	ved		M200.7 I	CP .					-				
Sodium, dissol													
Sodium, dissolv		Analyzad	FC14504	O.C	Sample	Feenad	Linits	Ker	Louises	Montar	RP0	Limit	

	0012522200000			
REP	IN.01	.06	.05	.01

WG220054ICV

WG220054ICB

WG220054LFB

L60850-05ASD

WG220540 WG220540ICV

WG220540ICB

WG220540LFB

L60872-07AS

L60872-07ASD

L60850-05AS

ICV

ICB

LFB

AS

ASD

ICV

ICB

LFB

AS

ASD

02/05/07 21:03

02/05/07 21:07

02/05/07 21:24

02/05/07 22:28

02/05/07 22:31

02/16/07 12:56

02/16/07 12:59

02/16/07 13:14

02/16/07 13:59

02/16/07 14:03

11070116-1

11070119-5

11070119-5

11070119-5

11070116-1

11070215-2

11070215-2

11070215-2

100

99.90786

99.90786

99.90786

100

99.90786

499.5393

499.5393

99.15

U

102.13

164.45

163.42

102.83

U

105.02

814.9

822.5

59.7

59.7

306

306

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

99.2

102.2

104.8

103.8

102.8

105.1

101.9

103.4

95

-0.9

85

85

85

95

-0.9

85

85

105

0.9

115

115

115

105

0.9

115

115

0.63

0.93

20

20

Inorganie QC Summary

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sulfate			SM4500 S	04-D								
ACZ ID	Type	Analyzed	PENERON	GC	Sample	Famil	Units	Figure	Lover	Harges	RPD	Limit Cores
WG220057												
WG220057PBW	PBW	02/05/07 16:36				U	mg/L		-30	30		
WG220057LCSW	LCSW	02/05/07 16:38	WC061207-2	100	•	95	mg/L	95	80	120		
L60872-06DUP	DUP	02/05/07 17:18			1640	1683	mg/L				2.6	20
Thallium, disso	lved		M200.8 IC	P-MS							t to the second second	
A 677 13	Tyre	Analyzad	PONSON	GIC	Samule	Formula		Res	Lovier	Upper	HED	e de la companya de
WG219772												
WG219772ICV	ICV	01/29/07 21:47	MS070108-2	.056		.05901	mg/L	105.4	90	110		
WG219772ICB	ICB	01/29/07 21:52				U	mg/L		-0.0003	0.0003		
WG219772LFB	LFB	01/29/07 21:58	MS061218-3	.05		.05401	mg/L	108	85	115		
L60857-04AS	AS	01/29/07 23:28	MS061218-3	.05	U	.05486	mg/L	109.7	70	130		
L60857-04ASD	ASD	01/29/07 23:34	MS061218-3	.05	U	.05251	mg/L	105	70	130	4.38	20
Zinc, dissolved			M200.7 IC	P .								
ACZ ID	Tyree	The state of the s	Terrorett			7 (1)	Jordán.	Ren	Lancas	Specie	FPD.	Len Dire
WG220054												
WG220054ICV	ICV	02/05/07 21:03	11070116-1	2		1.952	mg/L	97.6	95	105		
WG220054ICB	ICB	02/05/07 21:07				U	mg/L		-0.03	0.03		
WG220054LFB	LFB	02/05/07 21:24	11070119-5	.5		.496	mg/L	99.2	85	115		
L60850-05AS	AS	02/05/07 22:28	11070119-5	.5	.01	.545	mg/L	107	85	115		
L60850-05ASD	ASD	02/05/07 22:31	11070119-5	.5	.01	.549	mg/L	107.8	85	115	0.73	20
WG220540												
WG220540ICV	ICV	02/16/07 12:56	11070116-1	2		1.945	mg/L	97.3	95	105		
WG220540ICB	ICB	02/16/07 12:59				U	mg/L		-0.03	0.03		
WG220540LFB	LFB	02/16/07 13:14	11070215-2	.5		.504	mg/L	100.8	85	115		
L60872-07AS	AS	02/16/07 13:59	11070215-2	2.5	.44	2.76	mg/L	92.8	85	115		
L60872-07ASD	ASD	02/16/07 14:03	11070215-2	2.5	.44	2.726	mg/L	91.4	85	115	1.24	20

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

A Section 1		PARAMERER	METHOR		DESCRIPTION
L60872-01	WG219994	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219916	Cyanide, total	M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG220511	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60872-02	WG220194	Cyanide, total	M335.4 - Manual Distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC tailure during the initial analysis.
	WG219994	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220247	Cyanide, total	M335.4 - Colorimetric w/ distillation	HC .	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
•			M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220511	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60872-03	WG220194	Cyanide, total	M335.4 - Manual Distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG219994	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220247	Cyanide, total	M335.4 - Colorimetric w/ distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220511	Fluoride	SM4500F-C	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60872-04	WG220194	Cyanide, total	M335.4 - Manual Distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG219994	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220247	Cyanide, total	M335.4 - Colorimetric w/ distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M335.4 - Colorimetric w/ distillation	. M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220368	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG220090	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Inorganic Extended Qualifier Report

ACZ Project ID: L60872

Phelps Dodge Sierrita

	Mark Night	PARAMETER	METHOD	8.1741	DESCRIPTION
L60872-05	WG220194	Cyanide, total	M335.4 - Manual Distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG219994	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220247	Cyanide, total	M335.4 - Colorimetric w/ distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M335.4 - Colorimetric w/ distillation	M1.	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220368	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG220090	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60872-06	WG220194	Cyanide, total	M335.4 - Manual Distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG219994	Chloride	M325.2 - Colorimetric	· RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220247	Cyanide, total	M335.4 - Colorimetric w/ distillation	HC .	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220368	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG220090	Total Alkalinity	SM2320B - Titration	. RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60872-07	WG220194	Cyanide, total	M335.4 - Manual Distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC fallure during the initial analysis.
	WG219994	Chloride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220247	Cyanide, total	M335.4 - Colorimetric w/ distillation	HC .	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220368	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219796	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	ZO	TDS concentration is based on a final residue greater than 200 mg.
	WG220090	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

ACZ ID	MURRIQUIM	PARAMETER	NESSOR	611741	DESCRIPTION
L60872-08	WG220194	Cyanide, total	M335.4 - Manual Distillation	НС	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG219994	Chioride	M325.2 - Colorimetric	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220247	Cyanide, total	M335.4 - Colorimetric w/ distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG220368	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG220090	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60872-09	WG220194	Cyanide, total	M335.4 - Manual Distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG220247		M335.4 - Colorimetric w/ distillation	HC.	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			M335.4 - Colorimetric w/ distillation	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60872

GC/MS

Volatile Organics by GC/MS

M8260B GC/MS

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

ACZ Project ID:

L60872

Date Received:

1/25/2007

Received By:

Date Printed:

1/26/2007

Receipt Verdiestron

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	NO	NA
		X
. X		
		Х
	Х	
	Х	
	Х	
Х		
X		
X		
		X
Х		
Χ		
		X

Exceptions: If you answered no to any of the above questions, please describe

The Chain of Custody was not reliquished. The requested analyses were not present. The following items were not in agreement: number of samples, matrix, sampleid, number of containers. We did not recieve a coc, however we did login all samples in random order. Per the project managers instructions. Project manager called and has not heard back yet.

Contact (For any discrepancies, the client must be contacted)

The client was not contacted.

Shingling Containings

Cooler Id	Temp (°C)	Rad (µR/hr)
1385	4.4	16
		<u> </u>

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

Sample Receipt

Phelps Dodge Sierrita

ACZ Project ID: Date Received:

L60872

1/25/2007

Received By:

SAMPLE	CLIENT ID	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60872-01	IW-22		Υ	**************************************	Υ		-	-				
L60872-02	MH-13B		Y		Y							
L60872-03	MH-13A		Y		Y							
L60872-04	S-2		Y	<u> </u>	Y							
L60872-05	S-3		Y		Y							
L60872-06	IW-23		Y		Y			<u> </u>				
L60872-07	PZ-3		Y		Y							
L60872-08	MH-13C		Y		Y							
L60872-09	CN TB011607-02							1		X		
L60872-10	VLP TB 011607-03							1		X		

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2
0	Raw/Sulfuric	ORANGE	pH must be < 2
P	Raw/NaOH	PURPLE	pH must be > 12 *
T	Raw/NaOH Zinc Acetate	TAN	pH must be > 12
Υ	Raw/Sulfuric	YELLOW	pH must be < 2
YG	Raw/Sulfuric	YELLOW GLASS	pH must be < 2
N/A	No preservative needed	Not applicable	
RAD	Gamma/Beta dose rate	Not applicable	must be < 250 μR/hr

^{*} pH check performed by analyst prior to sample preparation

Sample IDs Reviewed By:	Sample IDs Reviewed By:		
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	oratories, l	nc.	ano.					CH	AIN:	of CI	JST	ODY
773 Downhill Drive Steamboa eport to:	t spirings, GO 100401 (6	100) 334-3	Saleston .		فالحال في حد سيدية	ording at	s of Purple					
ame: Bill Dolli	5		1	Addre	ss: 6	200	ulor.	t D	uval	Mu	re k	2/
	ge Sierrita				reen							
-mail: Ndorris@ohe					none:						100 1200	St. Dissa illus d
opy of Report to:	A CONTRACTOR OF THE PARTY OF TH			as constituenti de res		www.www.pisco.Plate						
ame: Jim Norris				E-mai	ı: şir	nn(Dha.	Cinc	. Con	1		
company: Hadro bec				Telepi	none:	520	293	150	OE	x+ 112	γ	
nvoice to:				ing a frage list the						*		
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Company:					Parlame							
-mail:				Telepi	none:						ang title and a state of the st	
f sample(s) received past hol	iding time (HT), or if in	sufficient	HT rema	ains to	complet	te i				YES	<u></u>	
nalysis before expiration, sh f "NO" then ACZ will contact	all ACZ proceed with a	equested	short H	T analy	/ses? nor "NO	•		on.	1944 1944 1944	NO	1	J
indicated, ACZ will proceed				T is exp	olred, an	d data	will be	qualifie	d. ,			
ROJECT INFORMATION	+			AN	ALYSES	REQU	ESTED	(attacl	list or	use qu	ote nun	nber)
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roject/PO#: OJaa X	N	ا مارسون می می می است.		Containers								
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ampler's Name:				of Co								
re any samples NRC licen	Spide the State of the case of the same and			#						1. :		
SAMPLE IDENTIFICATION	and the state of t		Matrix	1	7		ļ		_			
IW-22	1/23/2007	9:10	GW	8					-	1 1444	-	1
IW-23	1/23/2007	9:20	6W		+ -				 	1		-
Jan Jan		8:05	GW	1 7	1 - 4	1	1001	- in	-		-	
5-2	1/23/2007	- 1 gran	6.1	0	11	1111	WILL I	Enne of 1			1 22	
5-3	1/93/2007	7:45	-	8		41	1131	5/1/		+		
5-3 P Z -3	1/23/2007	13: 22	6W	8		141	1/3/	5,47				
5-3 PZ-3 MH-13A	1/23/2007 1/23/2007 1/24/2007	12:22 11:00	GW	8 8		H	<i>(1/37-</i>					
5-3 PZ-3 MH-13A MH-13B	1/23/2007 1/23/2007 1/24/2007 1/24/2007	12:22 11:00 12:15	GW GW	8 8		<i>H</i> /						
5-3 PZ-3 MH-13A	1/23/2007 1/23/2007 1/24/2007	12:22 11:00	GW	8 8		41	<i>V1134</i>					
5-3 PZ-3 MH-13A MH-13B	1/23/2007 1/23/2007 1/24/2007 1/24/2007	12:22 11:00 12:15	GW GW	8 8		4	<i>(1/3/-</i>					
5-3 PZ-3 MH-13A MH-13B MH-13C	1/23/2007 1/23/2007 1/24/2007 1/24/2007	12:22 11:00 12:15 10:20	GW GW GW	8 8 8	g Water)	SL (Sluc	ge): SO	(S6II)	DE (Oil)	Other (S	pecify)	
5-3 PZ-3 MH-13A MH-13B MH-13C Matrix SW (Surface Water)	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007	12:22 11:00 12:15 10:20	GW GW GW	8 8 8	g Water) ·	SL (Sluc	(///5// ge): SO	(Soll) : (DL (OII)	Other (S	pecify)	
5-3 PZ-3 MH-13A MH-13B MH-13C Matrix SW (Surface Water)	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007	12:22 11:00 12:15 10:20	GW GW GW	8 8 8	g Water)	SL (Sluc	ge) SO	(Soll)	DE (OII)	Other (S	pecify)	
5-3 PZ-3 MH-13A MH-13B MH-13C	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007	12:22 11:00 12:15 10:20	GW GW GW	8 8 8	y Water)	SL (Sluc	(///3// lge) SO	(Soll)	DL (OII)	Other (S)	pecify)	
5-3 PZ-3 MH-13A MH-13B MH-13C Matrix SW (Surface Water)	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007	12:22 11:00 12:15 10:20	GW GW GW	8 8 8	g Water)	SL (Sluc	ge) SO	(Soil) (DL (Oil)	Other (S	pacify)	
5-3 PZ-3 MH-13A MH-13B MH-13C Matrix SW (Surface Water)	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007	12:22 11:00 12:15 10:20	GW GW GW	8 8 8	g Water)	SL (Sluic	(///3// ge) SO	(Soll)	DL (Oil)	Other (S)	pecify)	
S-3 PZ-3 MH-13A MH-13B MH-13C Matrix SW (Surface Water)	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007	12: 22 11:00 12:15 10:20 (Waste Wa	GW GW GW	8 8 8 (Drinking	31					Other (S)	pecify	
S-3 PZ-3 MH-13A MH-13B MH-13C Matrix SW (Surface Water)	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007 GW (Ground Water) • WW	12: 22 11:00 12:15 10:20 (Waste Wa	GW GW GW ter) · DW	8 8 8 (Drinking	I on the	revers		of this			pecify),	IME
S-3 P2-3 MH-13A MH-13B MH-13C Matrix SW (Surface Water) REMARKS	1/23/2007 1/23/2007 1/24/2007 1/24/2007 1/24/2007 GW (Ground Water) • WW	12: 22 11:00 12:15 10:20 (Waste Wa	GW GW GW ter) · DW	8 8 8 (Drinking	I on the	revers	e side (of this				IME ID: 43

The state of the s

FRMAD050.03.05.02

White - Return with sample.

Yellow - Retain for your records.

Analytical Report

February 14, 2007

Report to:

Ned Hall

Phelps Dodge Sierrita

P.O. Box 527 6200 W. Duval Mine Rd.

Green Valley, AZ 85622-0527

cc: Jim Norris

Project ID: OJ00XN ACZ Project ID: L60805

Ned Hall:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on January 23, 2007. This project has been assigned to ACZ's project number, L60805. Please reference this number in all future inquiries.

Bill to:

Accounts Payable Phelps Dodge Sierrita

Phoenix, AZ 85002-2671

P.O. Box 2671

All analyses were performed according to ACZ's Quality Assurance Plan, version 11.0. The enclosed results relate only to the samples received under L60805. 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 March 14, 2007. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/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 reports for five years.

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

5. Habermahl

14/Feb/07

Scott Habermehl, Project Manager, has reviewed and approved this report in its entirety.





Laboratories, iric.

2773 Downhill DriveSteamboat Springs, CO 8048; (800) 334-5493

Case Narrative

February 14, 2007

Project ID: OJ00XN ACZ Project ID: L60805

Phelps Dodge Sierrita

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 4 ground water samples from Phelps Dodge Sierrita on January 23, 2007. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L60805. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

Any analyses not performed within EPA recommended holding times have been qualified with an "H" flag.

The hold time for Volatiles was exceeded due to the detector becoming saturated from a high level sample. No charges have been applied.

Sample Analysis

These samples were analyzed for inorganic, organic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures.

REPAD.03.06.05.01

L60805: Page 2 of 32

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-1

ACZ Sample ID:

L60805-01

Date Sampled:

01/19/07 08:55

Date Received:

01/23/07

Sample Matrix:

Ground Water

Inorganic Prep							
Parameter	EPA Method	Result		Units	MBL POL	Total Control	
Cyanide, total	M335.4 - Manual Distillation					01/29/07 12:15	jlf
Metals Analysis	·						
Parameter	EPA Method	Result	anai Ka	Units	MEDIL FOL	Data	
Aluminum, dissolved	M200.7 ICP		U	mg/L	0.03 0.2	01/31/07 13:16	wfg
Antimony, dissolved	M200.8 ICP-MS		U	mg/L	0.0004 0.002	01/24/07 21:30	jjr
Arsenic, dissolved	M200.8 ICP-MS	0.0033		mg/L	0.0005 0.001	01/24/07 21:30	jjr
Barium, dissolved	M200.7 ICP	0.024		mg/L	0.003 0.02	02/02/07 13:41	msh
Beryllium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001 0.0005	01/24/07 21:30	jjr
Cadmium, dissolved	M200.8 ICP-MS	0.0010		mg/L	0.0001 0.0005	01/24/07 21:30	jjr
Calcium, dissolved	M200.7 ICP	57.2		mg/L	0.2 1	01/31/07 13:16	wfg
Chromium, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:16	wfg
Cobalt, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:16	wfg
Copper, dissolved	M200.7 ICP	0.06		mg/L	0.01 0.05	01/31/07 13:16	wfg
Iron, dissolved	M200.7 ICP		U	mg/L	0.02 0.05	01/31/07 13:16	wfg
Lead, dissolved	M200.8 ICP-MS	0.0003	В	mg/L	0.0001 0.0005	01/24/07 21:30	jjr
Magnesium, dissolved	M200.7 ICP	7.9		mg/L	0.2 1	01/31/07 13:16	wfg
Manganese, dissolved	M200.7 ICP	0.029	В	mg/L	0.005 0.03	01/31/07 13:16	wfg
Mercury, dissolved	M245.1 CVAA		U	mg/L	0.0002 0.001	02/02/07 18:51	gme/djt
Molybdenum, dissolved	d M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:16	wfg
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:16	wfg
Potassium, dissolved	M200.7 ICP	3.1		mg/L	0.3 2	01/31/07 13:16	wfg
Selenium, dissolved	M200.8 ICP-MS	0.0005	В	mg/L	0.0001 0.0005	01/24/07 21:30	jjr
Sodium, dissolved	M200.7 ICP	49.3		mg/L	0.3 2	01/31/07 13:16	wfg
Thallium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001 0.0005	01/24/07 21:30	jjr
Zinc, dissolved	M200.7 ICP	0.11		mg/L	0.01 0.05	01/31/07 13:16	wfg

L60805: Page 3 of 32

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-1

ACZ Sample ID:

L60805-01

Date Sampled:

01/19/07 08.55

Date Received:

01/23/07

Sample Matrix: Ground Water

Wet Chemistry

Stameter	EPA Method	0.5111	Outsi	χū	l III is	MDL	POL	Date	Analys
Alkalinity as CaCO3	SM2320B - Titration	-	-						
Bicarbonate as		151			mg/L	2	20	02/01/07 0:00	cas
CaCO3									
Carbonate as CaCO	3		U		mg/L	2	20	02/01/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	02/01/07 0:00	cas
Total Alkalinity		151			mg/L	2	20	02/01/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		-18.6			%			02/12/07 0:00	calc
Sum of Anions		. 8.3			meg/L	0.1	0.5	02/12/07 0:00	calc
Sum of Cations		5.7			meq/L	0.1	0.5	02/12/07 0:00	calc
Chloride	M325.2 - Colorimetric	52			mg/L	1	5	01/29/07 16:53	jag
Conductivity @25C	M120.1 - Meter	524			umhos/cm	1	10	02/01/07 18:54	cas
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	01/31/07 21:24	pjb
Fluoride	SM4500F-C	2.0		*	mg/L	0.1	0.5	01/31/07 12:23	ct
Hardness as CaCO3	SM2340B - Calculation	175			mg/L	1	7	02/12/07 0:00	calc
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	2.58		*	mg/L	0.02	0.1	01/27/07 18:33	pjb
pH (lab)	M150.1 - Electrometric								
рН		8.2	Н		units	0.1	0.1	02/01/07 0:00	cas
pH measured at		19.0			С	0.1	0.1	02/01/07 0:00	cas
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	530	Н	*	mg/L	10	20	01/29/07 17:16	lcp
Sulfate	SM4500 SO4-D	180		*	mg/L	10	50	02/01/07 14:02	seb
TDS (calculated)	Calculation	. 442			mg/L	10	50	02/12/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.20			J			02/12/07 0:00	calc

Note: Suspected analytes were retested to verify the Cation-Anion Balance.



Inorganic Analytical Resille

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-4

ACZ Sample ID: L60805-02

Date Sampled:

01/19/07 08:30

Date Received:

01/23/07

Sample Matrix: Ground Water

Inorganic Pre	ď
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Parameter	EPA Method		Pleasill	Control (Control	Units	MDL POL	Deste	177
Cyanide, total	M335.4 - Manual Dist	illation					01/29/07 12:28	jlf
Metals Analysis								
Parameter	Et a Coutou		Result	Grad Ac	Units	MOL FOL	Dates	Analysi
Aluminum, dissolved	M200.7 ICP			U	mg/L	0.03 0.2	01/31/07 13:27	wfg
Antimony, dissolved	M200.8 ICP-MS			. U	mg/L	0.0004 0.002	01/24/07 21:36	jjr
Arsenic, dissolved	M200.8 ICP-MS		0.0144		mg/L	0.0005 0.00	01/24/07 21:36	jjr
Barium, dissolved	M200.7 ICP		0.015	В	mg/L	0.003 0.02	02/02/07 13:51	msh
Beryllium, dissolved	M200.8 ICP-MS			U.	mg/L	0.0001 0.000	5 01/24/ 07 21:36	jjr
Cadmium, dissolved	M200.8 ICP-MS		0.0003	В	mg/L	0.0001 0.000	5 01/24/07 21:36	jjr
Calcium, dissolved	M200.7 ICP		44.4		mg/L	0.2 1	01/31/07 13:27	wfg
Chromium, dissolved	M200.7 ICP			U	mg/L	0.01 0.05	01/31/07 13:27	wfg
Cobalt, dissolved	M200.7 ICP			U	mg/L	0.01 0.05	01/31/07 13:27	wfg
Copper, dissolved	M200.7 ICP			U	mg/L	0.01 0.05	01/31/07 13:27	wfg
Iron, dissolved	M200.7 ICP			U	mg/L	0.02 0.05	01/31/07 13:27	wfg
Lead, dissolved	M200.8 ICP-MS		0.0031		mg/L	0.0001 0.000	5 01/24/07 21:36	jjr
Magnesium, dissolved	M200.7 ICP		5.0		mg/L	0.2 1	01/31/07 13:27	wfg
Manganese, dissolved	M200.7 ICP			U	mg/L	0.005 0.03	01/31/07 13:27	wtg
Mercury, dissolved	M245.1 CVAA			U	mg/L	0.0002 0.00	02/02/07 18:54	gme/djt
Molybdenum, dissolve	d M200.7 ICP			U	mg/L	0.01 0.05	01/31/07 13:27	wfg
Nickel, dissolved	M200.7 ICP			· U	mg/L	0.01 0.05	01/31/07 13:27	wfg
Potassium, dissolved	M200.7 ICP		3.1		mg/L	0.3 2	01/31/07 13:27	wfg
Selenium, dissolved	M200.8 ICP-MS		0.0004	В	mg/L	0.0001 0.000	5 01/24/07 21:36	jjr
Sodium, dissolved	M200.7 ICP		56.2		mg/L	0.3 2	01/31/07 13:27	wfg
Thallium, dissolved	M200.8 ICP-MS			U	mg/L	0.0001 0.000	5 01/24/07 21:36	jjr
Zinc, dissolved	M200.7 ICP		0.02	В	mg/L	0.01 0.05	01/31/07 13:27	wfg

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-4

Date Sampled:

01/19/07 08:30

Date Received:

01/23/07

Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	Result	Qual	ХQ	Units	MDL	POL	Date	Analys
Alkalinity as CaCO3	SM2320B - Titration								
Bicarbonate as CaCO3		151			mg/L	2	20	02/01/07 0:00	cas
Carbonate as CaCO	3		U		mg/L	2	20	02/01/07 0:00	cas
Hydroxide as CaCO3	3		Ù		mg/L	2	20	02/01/07 0:00	cas
Total Alkalinity		151			mg/L	2	20	02/01/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance		1.0			%			02/12/07 0:00	calc
Sum of Anions		5.0			meq/L	0.1	0.5	02/12/07 0:00	calc
Sum of Cations		5.1			meq/L	0.1	0.5	02/12/07 0:00	calc
Chloride	M325.2 - Colorimetric	12			mg/L	1	5	01/29/07 16:55	jag
Conductivity @25C	M120.1 - Meter	501			umhos/cm	1	10	02/01/07 19:01	cas
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	01/31/07 21:27	pjb
Fluoride	SM4500F-C	8.0		*	mg/L	0.1	0.5	01/31/07 12:26	ct
Hardness as CaCO3	SM2340B - Calculation	132			mg/L	1	7	02/12/07 0:00	calc
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.28		*	mg/L	0.02	0.1	01/27/07 18:34	pjb
pH (lab)	M150.1 - Electrometric								
pН		8.2	Н		units	0.1	0.1	02/01/07 0:00	cas
pH measured at		19.0			С	0.1	0.1	02/01/07 0:00	cas
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	330	Н	*	mg/L	10	20	01/29/07 17:18	lcp
Sulfate	SM4500 SO4-D	80		*	mg/L	10	50	02/01/07 14:05	seb
TDS (calculated)	Calculation	292			mg/L	10	50	02/12/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.13						02/12/07 0:00	calc

Arizona license number: AZ0102

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-5

ACZ Sample ID: *L60805-03*

Date Sampled:

01/19/07 08:15

Date Received:

01/23/07

Sample Matrix: Ground Water

Inorganic Prep Parameter	EPA Method	Rosult	8.32		1110)	Prote.	
Cyanide, total	M335.4 - Manual Distillation					01/29/07 12:42	jlf
Metals Analysis							
Parseratoro	EPA Method	Person	Obtail 300	Units	Mill POL	Perio	
Aluminum, dissolved	M200.7 ICP		U	mg/L	0.03 0.2	01/31/07 13:30	wfg
Antimony, dissolved	M200.8 ICP-MS		U	mg/L	0.0004 0.002	01/24/07 21:42	jjr
Arsenic, dissolved	M200.8 ICP-MS	0.0116		mg/L	0.0005 0.001	01/24/07 21:42	jjr
Barium, dissolved	M200.7 ICP	0.026		mg/L	0.003 0.02	02/02/07 13:55	msh
Beryllium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001 0.0005	01/24/07 21:42	jjr
Cadmium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001 0.0005	01/24/07 21:42	jjr
Calcium, dissolved	M200.7 ICP	54.4		mg/L	0.2	01/31/07 13:30	wfg
Chromium, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:30	wfg
Cobalt, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:30	wfg
Copper, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:30	wíg
Iron, dissolved	M200.7 ICP		U	mg/L	0.02 0.05	01/31/07 13:30	wfg
Lead, dissolved	M200.8 ICP-MS	0.0020		mg/L	0.0001 0.0005	01/24/07 21:42	jjr
Magnesium, dissolved	M200.7 ICP	6.8		mg/L	0.2 1	01/31/07 13:30	wfg
Manganese, dissolved	M200.7 ICP		U	mg/L	0.005 0.03	01/31/07 13:30	wfg
Mercury, dissolved	M245.1 CVAA		U	mg/L	0.0002 0.001	02/02/07 18:56	gme/djt
Molybdenum, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:30	wfg
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01 0.05	01/31/07 13:30	wfg
Potassium, dissolved	M200.7 ICP	3.4		mg/L	0.3 2	01/31/07 13:30	wfg
Selenium, dissolved	M200.8 ICP-MS	0.0005		mg/L	0.0001 0.0005	01/24/07 21:42	jjr
Sodium, dissolved	M200.7 ICP	59.5		mg/L	0.3 2	01/31/07 13:30	wfg
Thallium, dissolved	M200.8 ICP-MS		U -	mg/L	0.0001 0.0005	01/24/07 21:42	jjr
Zinc, dissolved	M200.7 ICP	0.03	В	mg/L	0.01 0.05	01/31/07 13:30	wfg

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2773 Downhill Drive Steamboat Springs, CO 80487(800) 334-5493

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-5

ACZ Sample ID:

L60805-03

Date Sampled:

01/19/07 08:15

Date Received:

01/23/07

Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	Fostill	Qual	ΧO		MB	FOL	Design	A naily si
Alkalinity as CaCO3	SM2320B - Titration								•
Bicarbonate as		160			mg/L	2	20	02/01/07 0:00	cas
CaCO3				Α,	-				
Carbonate as CaCO3	3		U		mg/L	2	20	02/01/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	02/01/07 0:00	cas
Total Alkalinity		160			mg/L	2	20	02/01/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance) · · · · · · · · · · · · · · · · · · ·	0.0			%			02/12/07 0:00	calc
Sum of Anions		5.9			meq/L	0.1	0.5	02/12/07 0:00	calc
Sum of Cations		5.9			meq/L	0.1	0.5	02/12/07 0:00	calc
Chloride	M325.2 - Colorimetric	14			mg/L	1	5	01/29/07 16:57	jag
Conductivity @25C	M120.1 - Meter	577			umhos/cm	1	10	02/01/07 19:35	cas
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	01/31/07 21:28	pjb
Fluoride	SM4500F-C	8.0		*	mg/L	0.1	0.5	01/31/07 12:30	ct
Hardness as CaCO3	SM2340B - Calculation	164			mg/L	1	7	02/12/07 0:00	calc
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.24		*	mg/L	0.02	0.1	01/27/07 18:36	pjb
pH (lab)	M150.1 - Electrometric								
pН		8.2	Н		units	0.1	0.1	02/01/07 0:00	cas
pH measured at		19.0			С	0.1	0.1	02/01/07 0:00	cas
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	370	H	*	mg/L	10	20	01/29/07 17:19	icp
Sulfate	SM4500 SO4-D	110			mg/L	10	50	02/02/07 13:43	lcp
TDS (calculated)	Calculation	345			mg/L	10	50	02/12/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.07						02/12/07 0:00	calc

Arizona license number: AZ0102

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-6

ACZ Sample ID: L60805-04

Date Sampled:

01/19/07 07:50

Date Received:

01/23/07

Sample Matrix: Ground Water

Inorganic Prep Parameter Cyanide, total	EPA Method M335.4 - Manual Distillatio		lt Qual XQ	Units	MARKE.		01/29/07	12:55	jlf
Metals Analysis Parameter	EPA Method	Rosu	lt Dual XO	Units	MIDI	200			
Aluminum, dissolved	M200.7 ICP		U	mg/L	0.03	0.2	01/31/07	13:34	wfg
Antimony, dissolved	M200.8 ICP-MS		U	mg/L	0.0004	0.002	01/24/07	21:48	jir

Pararrioter	EPA Messon	Result	Our		MDL	201	10.71	Atoles
Aluminum, dissolved	M200.7 ICP		U	mg/L	0.03	0.2	01/31/07 13:34	wfg
Antimony, dissolved	M200.8 ICP-MS		Ų	mg/L	0.0004	0.002	01/24/07 21:48	jjr
Arsenic, dissolved	M200.8 ICP-MS	0.0063		mg/L	0.0005	0.001	01/24/07 21:48	jjr
Barium, dissolved	M200.7 ICP	0.042		mg/L	0.003	0.02	02/02/07 13:58	msh
Beryllium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	01/24/07 21:48	jjr
Cadmium, dissolved	M200.8 ICP-MS	0.0002	В	mg/L	0.0001	0.0005	01/24/07 21:48	jjr
Calcium, dissolved	M200.7 ICP	73.7		mg/L	0.2	1	01/31/07 13:34	wfg
Chromium, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/07 13:34	wig
Cobalt, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/07 13:34	wfg
Copper, dissolved	M200.7 ICP	0.01	В	mg/L	0.01	0.05	01/31/07 13:34	wfg
Iron, dissolved	M200.7 ICP		Ų	mg/L	0.02	0.05	01/31/07 13:34	wfg
Lead, dissolved	M200.8 ICP-MS	0.0067		mg/L	0.0001	0.0005	01/24/07-21:48	jjr
Magnesium, dissolved	M200.7 ICP	11.7		mg/L	0.2	1	01/31/07 13:34	wfg
Manganese, dissolved	M200.7 ICP	0.016	В	mg/L	0.005	0.03	01/31/07 13:34	wfg
Mercury, dissolved	M245.1 CVAA		U	mg/L	0.0002	0.001	02/02/07 19:03	gme/djt
Molybdenum, dissolve	d M200.7 ICP		, U	mg/L	0.01	0.05	01/31/07 13:34	wfg
Nickel, dissolved	M200.7 ICP		U	mg/L	0.01	0.05	01/31/07 13:34	wfg
Potassium, dissolved	M200.7 ICP	3.0		mg/L	0.3	2	01/31/07 13:34	wfg
Selenium, dissolved	M200.8 ICP-MS	0.0007		mg/L	0.0001	0.0005	01/24/07 21:48	jjr
Sodium, dissolved	M200.7 ICP	59.3		mg/L	0.3	2	01/31/07 13:34	wfg
Thallium, dissolved	M200.8 ICP-MS		U	mg/L	0.0001	0.0005	01/24/07 21:48	jjr
Zinc, dissolved	M200.7 ICP	0.06		mg/L	0.01	0.05	01/31/07 13:34	wfg

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Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-6

ACZ Sample ID:

L60805-04

Date Sampled:

01/19/07 07:50

Date Received:

01/23/07

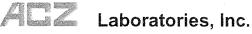
Sample Matrix: Ground Water

Wet Chemistry

Parameter	EPA Method	Result	Qual	ΧQ	Units	MDL	POL	Daire	Analyst
Alkalinity as CaCO3	SM2320B - Titration			220000					
Bicarbonate as		189			mg/L	2	20	02/01/07 0:00	cas
CaCO3									
Carbonate as CaCO	3 - 4 - 4		U		mg/L	2	20	02/01/07 0:00	cas
Hydroxide as CaCO3	3		U		mg/L	2	20	02/01/07 0:00	cas
Total Alkalinity		189			mg/L	2	20	02/01/07 0:00	cas
Cation-Anion Balance	Calculation								
Cation-Anion Balance)	2.1			%			02/12/07 0:00	calc
Sum of Anions		7.0			meq/L	0.1	0.5	02/12/07 0:00	calc
Sum of Cations	•	7.3			meq/L	0.1	0.5	02/12/07 0:00	calc
Chloride	M325.2 - Colorimetric	17			mg/L	1	5	01/29/07 16:58	jag
Conductivity @25C	M120.1 - Meter	689			umhos/cm	. 1	10	02/01/07 19:42	cas
Cyanide, total	M335.4 - Colorimetric w/ distillation		U	*	mg/L	0.005	0.03	01/31/07 21:28	pjb
Fluoride	SM4500F-C	1.1		*	mg/L	0.1	0.5	01/31/07 12:40	ct
Hardness as CaCO3	SM2340B - Calculation	232			mg/L	1	7	02/12/07 0:00	calc
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1.94		*	mg/L	0.02	0.1	01/27/07 18:37	pjb
pH (lab)	M150.1 - Electrometric								
рН		8.2	Н		units	0.1	0.1	02/01/07 0:00	cas
pH measured at		19.0			С	0.1	0.1	02/01/07 0:00	cas
Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	450	Н	*	.mg/L	10	20	01/29/07 17:20	lcp
Sulfate	SM4500 SO4-D	130			mg/L	10	50	02/02/07 13:44	Icp
TDS (calculated)	Calculation	409			mg/L	10	50	02/12/07 0:00	calc
TDS (ratio - measured/calculated)	Calculation	1.10						02/12/07 0:00	calc

Arizona license number: AZ0102

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2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

	r Explanations		
Batch	A distinct set of samples analyzed at a specific	time	
Found	Value of the QC Type of interest	, ume	
Limit	Upper limit for RPD, in:%.		*
Lower	Lower Recovery Limit, in % (except for LCSS,	ma/Ka)	
MDL	Method Detection Limit. Same as Minimum Re	:	for instrument and annual fluctuations
PCN/SCN		· -	
PQL	Practical Quantitation Limit, typically 5 times th		of a definition of analysis
QC QC	True Value of the Control Sample or the amount		
Rec	Amount of the true value or spike added recover	•	CSS_ma/Ka)
RPD	Relative Percent Difference, calculation used for		0 0,
Upper	Upper Recovery Limit, in % (except for LCSS,		
Sample	Value of the Sample of interest		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calivation 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 so		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
ele samuel	ype Explanations		
Blanks	Verifies that there is no	o or minimal contamina	ation in the prep method or calibration procedure.
Control Sa		of the method, includin	•
Duplicates	•	of the instrument and/o	
•		atrix interferences, if a	ny.
Standard	Verifies the validity of	the calibration.	
A Brown State of the	rs (Qual)		
В	Analyte concentration detected at a value betw	een MDL and PQL.	
Н	Analysis exceeded method hold time. pH is a	field test with an imme	diate hold time.
R	Poor spike recovery accepted because the oth	er spike in the set fell	within the given limits.
' T	High Relative Percent Difference (RPD) accept	ted because sample co	oncentrations are less than 10x the MDL.
U	Analyte was analyzed for but not detected at the	ne indicated MDL	
V	High blank data accepted because sample cor	centration is 10 times	higher than blank concentration
W	Poor recovery for Silver quality control is accept	oted because Silver oft	en precipitates with Chloride.
X	Quality control sample is out of control.		
Z	Poor spike recovery is accepted because sample	ole concentration is for	ur times greater than spike concentration.
	Muces		
(1)	EPA 600/4-83-020. Methods for Chemical Ana	alvsis of Water and Wa	estes March 1983
(2)			stances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determin	=	,
(5)	EPA SW-846. Test Methods for Evaluating Sc		•
(6)	Standard Methods for the Examination of Water		•
		,	•
W. 750404000000000000000000000000000000000	•		
\$2 16 11 (1746)	*		
(1)	QC results calculated from raw data. Results		
excellence of the second	QC results calculated from raw data. Results I Soil, Sludge, and Plant matrices for Inorganic a Animal matrices for Inorganic analyses are rep	analyses are reported	on a dry weight basis.

Phelps Dodge Sierrita

Project ID:

OJ00XN

ACZ Project	ID:	L60805
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Alkalinity as Ca	СОЗ		SM2320B	- Titration									
A(7.11)	Type	Analyzed	PENSON	E)C	Sample	Found	Units	Rec	Lower	Upper	P(PI)	Emi	Qual
WG219906													
WG219906LCSW2	LCSW	02/01/07 16:48	WC070127-6	820		818.1	mg/L	99.8	80	120			
L60805-02DUP	DUP	02/01/07 19:10		*	151	149.9	mg/L				0.7	20	
WG219906LCSW5	LCSW	02/01/07 19:23	WC070127-6	820		825.3	mg/L	100.6	80	120			
L60818-02DUP	DUP	02/01/07 20:45			141	140.7	mg/L				0.2	20	
WG219906LCSW8	LCSW	02/01/07 22:35	WC070127-6	820	-	829.9	mg/L	101.2	80	120			
Aluminum, diss	olved		M200.7 IC	P									
ACZ ID	Турс	Anchyzes	FENSIN	Ωť	Samule	Fourer	Units	Rec	Lewer	Upper	RPD	Limit	Chra
WG219832													
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2		1.944	mg/L	97.2	95	105			
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.09	0.09			
WG219832LFB	LFB	01/31/07 13:13	11070119-5	1		.997	mg/L	99.7	85	115			
L60805-01AS	AS ,	01/31/07 13:20	11070119-5	1	υ	1.063	mg/L	106.3	85	115			
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	1	υ	1.023	mg/L	102.3	85	115	3.84	20	
Antimony, disso	olved		M200.8 IC	P-MS									
ARZ (B)		1777		e je		Found	Units	Rec	Levrer	Upper		1.00	0),71
WG219597													
WG219597ICV	ICV	01/24/07 18:58	MS070108-2	.02		.02055	mg/L	102.8	90	110			
WG219597ICB	ICB	01/24/07 19:04				U	mg/L		-0.0012	0.0012			
WG219597LFB	LFB	01/24/07 19:10	MS061218-3	.00625		.00676	mg/L	108.2	85	115			
L60803-02AS	AS	01/24/07 20:44	MS061218-3	.03125	U	.0328	mg/L	105	70	130			
L60803-02ASD	ASD	01/24/07 20:49	MS061218-3	.03125	U	.0331	mg/L	105.9	70	130	0.91	20	
Arsenic, dissolv	ed		M200.8 IC	P-MS				····					
Aez is	1923	Arraiyzad	PONSON	0.6	Sample	Found	Units	Rec	Leaver	Upper	RPD	Limit	Dual
WG219597													
WG219597ICV	ICV	01/24/07 18:58	MS070108-2	.05		.05259	mg/L	105.2	. 90	110			
WG219597ICB	ICB	01/24/07 19:04				U	mg/L		-0.0015	0.0015			
WG219597LFB	LFB	01/24/07 19:10	MS061218-3	.05		.0541	mg/L	108.2	85	115			
L60803-02AS	AS	01/24/07 20:44	MS061218-3	.25	U	.2691	mg/L	107.6	70	130			
L60803-02ASD	ASD	01/24/07 20:49	MS061218-3	.25	U	.2685	mg/L	107.4	70	130	0.22	20	
Barium, dissolv	ed	· · · · · · · · · · · · · · · · · · ·	M200.7 IC	P					***************************************			~~~	
ACZOB	Туре	Analyzed	Postici	ØL	Sample	Found	Unita		Lower	Dager	RPD	Linit	
WG219933													
WG219933ICV	ICV	02/02/07 13:20	11070116-1	2		2.0727	mg/L	103.6	95	105			
WG219933ICB	ICB	02/02/07 13:24		_		U.0727	mg/L	.00.0	-0.009	0.009			
WG219933LFB	LFB	02/02/07 13:37	11070119-5	.5		.502	mg/L	100.4	85	115			
L60805-01AS	AS	02/02/07 13:44	11070119-5	.5	. 024	.545	mg/L	104.2	85	115			
L60805-01ASD	ASD	02/02/07 13:48	11070119-5	.5	.024	.5375	mg/L	102.7	85	115	1.39	20	
													

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Beryllium, disso	lved		M200.8 10	CP-MS									
ACZ (B	Type	Avalyton	10.15	e(c	Sample	Found	Units			Legen		Limit	
WG219597													
WG219597ICV	ICV	01/24/07 18:58	MS070108-2	.05		.05062	mg/L	101.2	90	110			
WG219597ICB	ICB	01/24/07 19:04				.00021	mg/L		-0.0003	0.0003			
WG219597LFB	LFB	01/24/07 19:10	MS061218-3	.05		.05139	mg/L	102.8	85	115			
L60803-02AS	AS	01/24/07 20:44	MS061218-3	.25	U	.25805	mg/L	103.2	70	130			
L60803-02ASD	ASD	01/24/07 20:49	MS061218-3	.25	U	.261	mg/L	104.4	70	130	1.14	20	
Cadmium, disso	lved		M200.8 I	CP-MS									
AGZ (5)	Type:	Assalyzad		CL	ammore			Rec	CARE	Upper			Onto
WG219597													
WG219597ICV	ICV	01/24/07 18:58	MS070108-2	.05		.0513	mg/L	102.6	90	110			
WG219597ICB	ICB	01/24/07 19:04				U	mg/L		-0.0003	0.0003			
WG219597LFB	LFB	01/24/07 19:10	MS061218-3	.05		.05238	mg/L	104.8	85	115			
L60803-02AS	AS	01/24/07 20:44	MS061218-3	.25	U	.2527	mg/L	101.1	70	130			
L60803-02ASD	ASD	01/24/07 20:49	MS061218-3	.25	U	.2529	mg/L	101.2	70	130	80.0	20	
Calcium, dissolv	ved		M200.7 K	CP									
7	Type	Analyzza	TO NECES	G P	Samuelle		Units	Rec	Lower	Upper		mi	
WG219832													
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	100		98.74	mg/L	98.7	95	105			
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.6	0.6			
WG219832LFB	LFB	01/31/07 13:13	11070119-5	67.95918		68.01	mg/L	100.1	85	115			
L60805-01AS	AS	01/31/07 13:20	11070119-5	67.95918	57.2	125.55	mg/L	100.6	85	115			
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	67.95918	57.2	122.94	mg/L	96.7	85	115	2.1	20	***
Chloride			M325.2 -	Colorimetri	0								
ACZ ID	Type	Astropand	Plantister	C.C.	Sample	Forms	Units	Rec	trainer	Morean	100	Linit	Daries
WG219776													
WG219776ICV	ICV	01/29/07 15:17	WI061113-3	55		57.2	mg/L	104	90	110			
WG219776ICB	ICB	01/29/07 15:18				υ	mg/L		-3	3			
WG219786													
WG219786ICV	ICV	01/29/07 16:50	WI061113-3	55		57.3	mg/L	104.2	90	110			
WG219786ICB	ICB	01/29/07 16:51				U	mg/L		-3	3			
WG219786LFB1	LFB	01/29/07 16:52	WI061127-1	30		30	mg/L	100	90	110			
L60805-01AS	AS	01/29/07 16:54	WI061127-1	30	52	79.6	mg/L	92	90	110			
L60805-02DUP	DUP	01/29/07 16:56			12	12.4	mg/L				3.3	20	
WG219786LFB2	LFB	01/29/07 18:02	WI061127-1	30		29.9	mg/L	99.7	90	110			
Chromium, diss	olved	<u></u>	M200.7 I	CP			*************************						
A(672/HJ		And the second		0.0		Found	Timile:	Page	Lower		2013	i invit	
WG219832													
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2		-1.947	mg/L	97.4	95	. 105		+	
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.03	0.03			
WG219832LFB	LFB	01/31/07 13:13	11070119-5	.5		.489	mg/L	97.8	85	115			
L60805-01AS	AS	01/31/07 13:20	11070119-5	.5	U	.498	mg/L	99.6	85	115			
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	.5	U	.496	mg/L	99.2	85	115	0.4	20	

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WG219832CV	Cobalt, dissolve	∍d		M200.7 I	CP									
WG219832 WG219832 WG21983 WG21983	ACZ ID	Type	Analyzed	De Nesta	ele	Samuel	Found	Units	Rec	Lower		WFID	Limit	o Ditai
WASSINGERING LEB	WG219832													
WASSINGERED CR WASSINGERED WASSINGER	WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2		1.908	mg/L	95.4	95	105			
LB080F-071AS AS 01/31/07 13:20 10/07119-5 .5 U .481 mg/L .98.2 .85 .115 0.2 .20	WG219832ICB	ICB	01/31/07 12:59					•						
LEBBERG-OFAISA AS 01/31/07 13/20 10/70119-5 .5 .5 .0 .491 mg/L .98.4 .85 .115 .0.2 .20	WG219832LFB	LFB	01/31/07 13:13	11070119-5	.5		.488	_	97.6		115			
Conductivity @25C	L60805-01AS	AS	01/31/07 13:20	11070119-5	.5	U	.491	•						
MC219906	L60805-01ASD	ASD	01/31/07 13:23	11070119-5	.5	U	.492	mg/L	98.4	85	115	0.2	20	
WG219906 WG21906 WG2190	Conductivity @	25C		M120.1 -	Meter			***************************************						
MC219906PBW11 PBW 02/01/07 16:36 MC219906PBW12 LUSW 02/01/07 16:37 PCN25346 1408.8 1426 Mrhos/cm 101.2 80 120 MC219906PBW2 PBW 02/01/07 19:10 8.3 Mrhos/cm 101.2 80 120 MC219906PBW2 PBW 02/01/07 19:11 PCN25346 1408.8 1437 Mrhos/cm 101 10 10 MC219906PBW2 PBW 02/01/07 19:15 PCN25346 1408.8 1437 Mrhos/cm 101.2 80 120 MC219906PBW2 PBW 02/01/07 20:24 PCN25346 1408.8 1437 Mrhos/cm 101.6 80 120 MC219906PBW2 PBW 02/01/07 20:24 PCN25346 1408.8 1437 Mrhos/cm 101.6 80 120 MC219906LCSW7 LCSW 02/01/07 20:24 PCN25346 1408.8 May May Mrhos/cm 101.6 80 120 MC219906LCSW7 LCSW 02/01/07 20:24 PCN25346 1408.8 May Mrhos/cm 101.6 80 120 MC219906LCSW7 MC219932LCYB MC21932LCYB MC21932LCYB MC21932LCYB MC21932LCYB MC21932LCYB MC21932LCYB MC21932LCYB MC21932LCYB MC21932LCYB MC219332LCYB MC21933	AtZID	Type	Attacky zas		OC.	Sample	Found	Units	Res	Later	djejacir	FFD	Limit	
WG219906LCSW1	WG219906													
MG219806LCSW1 LCSW 0201107 19:10 1408 1408.8 1428 1428 1408.8 1428 1408.8 1428 1408.8 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 1428 14	WG219906PBW1	PBW	02/01/07 16:36				8.3	ımhos/cn		-10	10		-	
L60805-02DUP DUP 02/01/07 19:10	WG219906LCSW1	LCSW	02/01/07 16:37	PCN25346	1408.8		1426		101.2					
MG219906PBM2	L60805-02DUP	DUP	02/01/07 19:10			501	501					0	20	
WG219832 CSW LCSW 02/01/07 21:22 PCN25346 1408.8 1437 Imhos/cn 102 80 120 0.5 20 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120	WG219906PBW2	PBW	02/01/07 19:11				8.3			-10	10			
L60818-02DUP DUP 02/01/07 20:45 399 401 minos/cn 101.6 80 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 12	WG219906LCSW4	LCSW	02/01/07 19:13	PCN25346	1408.8				102					
Mg219986LCSW7 LCSW 02/01/07 22:24 PCN25546 1408.8 1431 Imhos/m 101.6 80 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120 120	L60818-02DUP	DUP	02/01/07 20:45			399						0.5	20	
Mode	WG219906LCSW7	LCSW	02/01/07 22:24	PCN25346	1408.8		1431		101.6	80	120			
WG219832 WG219832 CV1	Copper, dissolv	ed		M200.7 I	CP		-oranipamina oran						······································	
WG219832ICV1	ACZ ID	PW-E	Arribyzed	PONSON	20	Sample	Franci	Units	Ren	Lower	Upper	RED	a i mi	Pirel
WG219832ICB ICB 01/31/07 13:13 II070119-5 .5 .49 mg/L .90.3 0.03	WG219832													
WG219832ICB ICB 01/31/07 13:13 II070119-5 .5 .49 mg/L .90.3 0.03	WG219832IC\/1	ICV	01/31/07 12:55	U070416-1	2		1 029	mall	06.4	O.E.	105			
WG219832LFB				110701101				•	30.4					
L60805-01AS AS 01/31/07 13:20 II070119-5 .5 .06 .553 mg/L 98.6 85 115 0.54 20 Cyanide, total				11070119-5	-5			-	QR					
Marcological Marc						. 06		-						
ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG219894 WG219894ICW ICV 01/31/07 21:16 WI070126-3 .3 .2953 mg/L 98.4 90 110 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015 99.015	L60805-01ASD							-				0.54	20	
WG219894 WG219894ICV ICV 01/31/07 21:16 WI070126-3 .3 .2953 mg/L 98.4 90 110 WG219894ICB ICB 01/31/07 21:16 U mg/L -0.015 0.015 WG219747LRB LRB 01/31/07 21:17 U mg/L -0.015 0.015 WG219747LFB LFB 01/31/07 21:18 WI070126-7 .2 .1895 mg/L 94.8 90 110 L60798-01DUP DUP 01/31/07 21:20 U U mg/L 0 20 RA L60798-02LFM LFM 01/31/07 21:22 WI070126-7 .2 U .1685 mg/L 84.3 90 110 M2 Fluoride SM4500F-C ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG219852 WG219852CV ICV 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852LFB LFB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	Cyanide, total			M335.4 -	Colorimetri	c w/ disti	llation							
WG219894ICV ICV 01/31/07 21:16 WI070126-3 .3 .2953 mg/L 98.4 90 110 WG219894ICB ICB 01/31/07 21:16 U mg/L -0.015 0.015 WG219747LRB LRB 01/31/07 21:17 U mg/L -0.015 0.015 WG219747LFB LFB 01/31/07 21:18 WI070126-7 .2 .1895 mg/L 94.8 90 110 L60798-01DUP DUP 01/31/07 21:20 U U mg/L 0 20 RA L60798-02LFM LFM 01/31/07 21:22 WI070126-7 .2 U .1685 mg/L 84.3 90 110 M2 Fluoride SM4500F-C WG219852 WG219852ICV ICV 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 M1	ACZ ID	177.5	Ambani	PONSON	OC.	Sample	100	Cinties	Ren	Lance	Upper	RPD	imit	Sheet .
WG219894ICB ICB 01/31/07 21:16	WG219894													
WG219894ICB ICB 01/31/07 21:16	WG219894ICV	ICV	01/31/07 21:16	WI070126-3	.3		2953	ma/l	98.4	۵n	110			
WG219747LRB LRB 01/31/07 21:17								•	JU.4					•
WG219747LFB	WG219747LRB							-						
L60798-01DUP DUP 01/31/07 21:20 U U mg/L 0 20 RA L60798-02LFM LFM 01/31/07 21:22 WI070126-7 .2 U .1685 mg/L 84.3 90 110 M2 Fluoride SM4500F-C ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG219852 WG219852ICV ICV 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	WG219747LFB			WI070126-7	.2				94.8					
L60798-02LFM LFM 01/31/07 21:22 WI070126-7 .2 U .1685 mg/L 84.3 90 110 M2 Fluoride SM4500F-C ACZ ID Type Analyzed PCN/SCN QC Sample Found Units Rec Lower Upper RPD Limit Qual WG219852 WG219852ICV ICV 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	L60798-01DUP			1110701201		П		•	54.0	30	110	٥	20	ÐΛ
WG219852 ICV 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852ICB ICB 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	L60798-02LFM			WI070126-7	.2				84.3	90	110	O	20	
WG219852 WG219852ICV ICV 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	Fluoride			SM4500F	=-C									
WG219852ICV ICV 01/31/07 11:10 WC070126-1 1.996 2.08 mg/L 104.2 95 105 WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	ACZ IB	NOE	Analyza			Sample		Units	Tec	Lower	Boose		l med	Ougl
WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	WG219852													
WG219852ICB ICB 01/31/07 11:13 U mg/L -0.3 0.3 WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	WG219852ICV	ICV	01/31/07 11:10	WC070126-1	1,996		2 08	ma/l	104.2	95	105			
WG219852LFB LFB 01/31/07 11:20 WC061021-1 4.99902 5.48 mg/L 109.6 90 110 L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	WG219852ICB				500			-	10-1.4					
L60811-02AS AS 01/31/07 12:50 WC061021-1 4.99902 2.4 8.29 mg/L 117.8 85 115 M1	WG219852LFB			WC061021-1	4.99902			-	109.6					
	L60811-02AS					2.4		-						N/A
	L60811-02DUP					2.4	2.43	mg/L		50	. 10	1.2	20	1911

ACZ Project ID: L60805

Phelps Dodge Sierrita

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Project ID:	0,	J00XN			220)12200000000000000000000000000000000		2541245000000000000000000000000000000000	MINIOTAN PROVINCE			errennedorome	out monopology verify nonenous societies (eviden
Iron, dissolved		The state of the s	M200.7 I	CP			A STANLAND OF STANLAND STANLAND		and the second s			
A - 7 II.	Type	Analyzed	1111111	0.0	Samole	Feind	Unitis	Rec	Oper	Unger	FIFE	Lent Con
WG219832												
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2		1.969	mg/L	98.5	95	105		
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.06	0.06		
WG219832LFB	LFB	01/31/07 13:13	11070119-5	1		1.008	mg/L	100.8	85	115		
L60805-01AS	AS	01/31/07 13:20	11070119-5	1	U	1.016	mg/L	101.6	85	115		
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	1	U	1.003	mg/L	100.3	85	115	1.29	20
Lead, dissolved			M200.8 I	CP-MS								
AC740	Type:	Armyzeo	Ferriser	910	Sample		Unites	Res	1,111	disper	11.3	2.15
WG219597												
WG219597ICV	ICV	01/24/07 18:58	MS070108-2	.05		.05401	mg/L	108	90	110		
WG219597ICB	ICB	01/24/07 19:04				.00015	mg/L		-0.0003	0.0003		
WG219597LFB	LFB	01/24/07 19:10	MS061218-3	.05		.0525	mg/L	105	85	115		
L60803-02AS	AS	01/24/07 20:44	MS061218-3	.25	.0011	.2588	mg/L	103.1	70	130		
L60803-02ASD	ASD	01/24/07 20:49	MS061218-3	.25	.0011	.2582	mg/L	102.8	70	130	0.23	20
Magnesium, diss	solved		M200.7 I	CP								
AC7/10		N 121 17 22 1		6]0	Same		Units	Pers		Upper	7(1)	(17) 9-171
WG219832												
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	100		96.43	mg/L	96.4	95	105		
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.6	0.6		
WG219832LFB	LFB	01/31/07 13:13	11070119-5	54.98614		54.38	mg/L	98.9	85	115		
L60805-01AS	AS	01/31/07 13:20	11070119-5	54.98614	. 7.9	64.8	mg/L	103.5	85	115		
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	54.98614	7.9	62.81	mg/L	99.9	85	115	3.12	20
Manganese, diss	solved		M200.7 I	CP								
ACZ III	11112	Assetyped	polyster.	ele		1010			Later			Emplis Aller
WG219832												
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2		1.9278	mg/L	96.4	95	105		
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.015	0.015		
WG219832LFB	LFB	01/31/07 13:13	11070119-5	.5		.4909	mg/L	98.2	85	115		
L60805-01AS	AS	01/31/07 13:20	11070119-5	.5	.029	.5227	mg/L	98.7	85	115		
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	.5	.029	.5162	mg/L	97.4	85	115	1.25	20
Mercury, dissolv	red		M245.1 (CVAA								
(1877) [B]	Type	Analyzed	Fred State (St.)	51			Unite				FFF	
WG219910												
WG219910ICB	ICB	02/02/07 15:01				U	mg/L		-0.0006	0.0006	•	
WG219651												
WG219651LRB	LRB	02/02/07 18:19				U	mg/L		-0.00044	0.00044		
WG219651LFB	LFB	02/02/07 18:21	11070202-3	.002		.00196	mg/L	98	85	115		
L60802-01LFM	LFM	02/02/07 18:28	11070202-3	.002	U	.0019	mg/L	95	85	115		
L60802-01LFMD	LFMD	02/02/07 18:30	11070202-3	.002	U	.00196	mg/L	98	85	115	3.11	20
L60805-03LFM	LFM	02/02/07 18:58	11070202-3	.002	U	.00196	mg/L	98	85	115		
L60805-03LFMD	LFMD	02/02/07 19:00	11070202-3	.002	U	.00201	mg/L	100.5	85	115	2.52	20

Phelps Dodge Sierrita

Project ID:

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	BOOTS New York				kadesan sasan on sas	HOUSE HER SHOWER	100000000000000000000000000000000000000		Managara da Managara yang	Mark Company (Contract)	EROSTO E O CONTRACTO	DESCRIPTION OF THE PERSON	by need to a second a second
Molybdenum, di	issolved	đ	M200.7	ICP									
A972 D		10017404		616		Found	Units	7.20	Lower	Upper	RPD	Limit	Chief
WG219832													
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2		2.003	mg/L	100.2	95	105			
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.03	0.03			
WG219832LFB	LFB	01/31/07 13:13	11070119-5	.5		.498	mg/L	99.6	85	115			
L60805-01AS	AS	01/31/07 13:20	11070119-5	.5	U	.518	mg/L	103.6	85	115			
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	.5	U	.503	mg/L	100.6	85	115	2.94	20	
Nickel, dissolve	d		M200.7	ICP							******************************	DESCRIPTION OF THE PARTY OF THE	
A67 (B	i m	Analyzet	FENSON	0.0		Found	Units	Rec	1000	Upper		-	
WG219832													
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2		1.915	mg/L	95.8	95	105			
WG219832ICB	ICB	01/31/07 12:59				U	mg/L	-	-0.03	0.03			
WG219832LFB	LFB	01/31/07 13:13	11070119-5	.5		.481	mg/L	96.2	85	115			
L60805-01AS	AS	01/31/07 13:20	11070119-5	.5	U	.488	mg/L	97.6	85	115			
L60805-01ASD	ASD	01/31/07 13:23	II070119-5	.5	U	.486	mg/L	97.2	85	115	0.41	20	
Nitrate/Nitrite as	, N		M353.2	- H2SO4 pr	eserved						***************************************		
A674 D	Type:	Fereilyzek		9.19	Sample	100			. Children		87873	- mil	Cital
WG219735													
WG219735ICV	ICV	01/27/07 15:59	WI061207-1	2.416		2.316	mg/L	95.9	90	110			
WG219735ICB	ICB	01/27/07 16:00				U	mg/L		-0.06	0.06			
WG219737							Ü						
WG219737ICV	ICV	01/27/07 17:59	WI061207-1	2.416		2.386	mg/L	98.8	90	110			
WG219737ICB	ICB	01/27/07 18:00				U	mg/L		-0.06	0.06			
WG219737LFB	LFB	01/27/07 18:01	WI060906-4	2		1.977	mg/L	98.9	90	110			
L60788-05AS	AS	01/27/07 18:22	WI060906-4	2	.06	1.837	mg/L	88.9	90	110			M2
L60788-06DUP	DUP	01/27/07 18:25			.64	.674	mg/L				5.2	20	
pH (lab)			M150.1 -	- Electromet	tric	***************************************			···				
AGZ TB	Type:	Analyzed	PROSEN	e je	Sample	100	Units	Ret	Lower	Herear			Distri
WG219906													
WG219906LCSW3	LCSW	02/01/07 16:51	PCN25442	6		6.03	units	100.5	90	110			
L60805-02DUP	DUP	02/01/07 19:10			8.2	8.24	units				0.5	20	
WG219906LCSW6	LCSW	02/01/07 19:26	PCN25442	6		6.05	units	100.8	90	110			
L60818-02DUP	DUP	02/01/07 20:45			8.3	8.32	units				0.2	20	
WG219906LCSW9	LCSW	02/01/07 22:38	PCN25442	6		6.06	units	101	90	110			
Potassium, diss	olved		M200.7 I	CP									***************************************
A 072 118	Type	And the state of t	Period	G &			Units	Rec	Lowrer	l proper		11111	1.1
WG219832													
18/004000000144	ICV	01/31/07 12:55	11070116-1	20		20.06	mg/L	100.3	95	105			
WG219832ICV1									-0.9	0.9			
WG219832IC8	ICB	01/31/07 12:59				U	mg/L		-0.5	0.0			
	ICB LFB	01/31/07 12:59 01/31/07 13:13	11070119-5	99.51014		101.03	mg/L mg/L	101.5	85	115			
WG219832ICB			II070119-5 II070119-5	99.51014 99.51014	3.1		•	101.5 109.8					

Phelps Dodge Sierrita

Project ID:

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	Autor Alleringste				SPORTER ANNUAL			ogravensi manyamnya		COSTO PARTICIPATOR CONTROL		(STRIGHTSWIKESSE)	
Residue, Filtera	ble (TDS	S) @180C	M160.1 -	Gravimetric									
AC7 (B)		Arreignes		G (C	Samuel		Units	T a	Louis	111111	RPD	Lini'i	OTTE
WG219790													
WG219790PBW	PBW	01/29/07 17:00	٠			U	mg/L		-20	20			
WG219790LCSW	LCSW	01/29/07 17:01	PCN26282	261		274	mg/L	105	80	120			
L60829-01DUP	DUP	01/29/07 17:29			2640	2640	mg/L				0	20	
Selenium, disso	lved		M200.8 I	CP-MS									
AleZa ID	Eggs	Analyzza		CC		Fedge	Units	Rec	1,211,121	11111	1177		2.77
WG219597													
WG219597ICV	ICV	01/24/07 18:58	MS070108-2	.05		.05304	mg/L	106.1	90	110			
WG219597ICB	ICB	01/24/07 19:04				.0002	mg/L		-0.0003	0.0003			
WG219597LFB	LFB	01/24/07 19:10	MS061218-3	.05		.05181	mg/L	103.6	85	115			
L60803-02AS	AS	01/24/07 20:44	MS061218-3	.25	U	.2644	mg/L	105.8	70	130			
L60803-02ASD	ASD	01/24/07 20:49	MS061218-3	.25	U	.25625	mg/L	102.5	70	130	3.13	20	
Sodium, dissolv	/ed		M200.7 K	CP		***************************************							
AC7 :		Arealyzad	P.C.H.S.C.H	QC	Sergele		Linits	Ren	1.00	Upper	TIME.	1111	
WG219832													
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	100		99.81	mg/L	99.8	95	105			
WG219832ICB	ICB	01/31/07 12:59				U	mg/L		-0.9	0.9			
WG219832LFB	LFB	01/31/07 13:13	11070119-5	99.90786		100.77	mg/L	100.9	85	115			
L60805-01AS	AS	01/31/07 13:20	11070119-5	99.90786	49.3	153.3	mg/L	104.1	85	115			
L60805-01ASD	ASD	01/31/07 13:23	11070119-5	99.90786	49.3	148.92	. mg/L	99.7	85	115	2.9	20	
Sulfate			SM4500	SO4-D									
1.002.18	Type	Arrahyzett	100	QL .		Francis	l mit	Flor	Lorerer	figur			e red s
WG219918													
WG219918PBW	PBW	02/01/07 13:40				U	mg/L		-30	30			
WG219918LCSW	LCSW	02/01/07 13:42	WC061207-2	100		100	mg/L	100	80	120			
L60797-04DUP	DUP	02/01/07 13:57			U	U	mg/L				0	20	RA
WG219961													
WG219961PBW	PBW	02/02/07 13:41				U	mg/L		-30	30			
WG219961LCSW	LCSW	02/02/07 13:42	WC061207-2	100		101	mg/L	101	80	120			
L60808-07DUP	DUP	02/02/07 14:01			180	189	mg/L				4.9	20	
Thallium, disso	lved		M200.8 I	CP-MS						-			
	Topse		5.61.5516	C [6	Sanya	- 1111	Units	Flex	Lower	l la reza			Carrel
WG219597													
WG219597ICV	ICV	01/24/07 18:58	MS070108-2	.056		.05503	mg/L	98.3	90	110			
WG219597ICB	ICB	01/24/07 19:04				U	mg/L		-0.0003	0.0003			
WG219597LFB	LFB	01/24/07 19:10	MS061218-3	.05		.05054	mg/L	101.1	85	115			
L60803-02AS	AS	01/24/07 20:44	MS061218-3	.25	U	.25245	mg/L	101	70	130			
L60803-02ASD	ASD	01/24/07 20:49	MS061218-3	.25	U	.25165	mg/L	100.7	70	130	0.32	20	

Phelps Dodge Sierrita

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Zinc, dissolved	ŀ		M200.7 (CP									
V65X JB	Туре	Attalyzed	2011	CIC	Statistical	Football	Units	7.2	Conten	District	REES	Limit	
WG219832													
WG219832ICV1	ICV	01/31/07 12:55	11070116-1	2 ·		1.929	mg/L	96.5	95	105			
WG219832ICB	ICB	01/31/07 12:59				U,	mg/L		-0.03	0.03			
WG219832LFB	LFB	01/31/07 13:13	11070119-5	.5		.496	mg/L	99.2	85	115			
L60805-01AS	AS	01/31/07 13:20	11070119-5	.5	.11	.621	mg/L	102.2	85	115			
L60805-01ASD	ASD	01/31/07 13:23	II070119-5	.5	.11	.602	mg/L	98.4	85	115	3.11	20	

Inorganic Extended Qualifier Report

Phelps Dodge Sierrita

	***	PARAMETER	1122 516 8		DESCRIPTION
L60805-01	WG219894	Cyanide, total	M335.4 - Colorimetric w/		Matrix spike recovery was low, the method control sample
200000-01	***GZ 1000-1	Gyarriad, Islan	distillation	17.00	recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219852	Fluoride	SM4500F-C	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219737	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219790	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG219918	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60805-02	WG219894	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	•		M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219852	Fluoride	SM4500F-C	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219737	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219790	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
	WG219918	Sulfate	SM4500 SO4-D	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
L60805-03	WG219894	Cyanide, total	M335.4 - Colorimetric w/ distillation	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219852	Fluoride	SM4500F-C	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219737	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219790	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
L60805-04	WG219894	Cyanide, total	M335.4 - Colorimetric w/ distillation	M 2	Matrix spike recovery was low, the method control sample recovery was acceptable.
			M335.4 - Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the sample concentration is too low for accurate evaluation (< 10x MDL).
	WG219852	Fluoride	SM4500F-C	M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
	WG219737	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
	WG219790	Residue, Filterable (TDS) @180C	M160.1 - Gravimetric	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-1

ACZ Sample ID:

L60805-01

Date Sampled:

01/19/07 8:55

Date Received:

01/23/07

Sample Matrix:

Ground Water

Volatile Organics by GC/MS

Analysis Method: M8260B GC/MS

Extract Method:

Workgroup: WG220008

Analyst: jj Extract Date:

Analysis Date: 02/04/07 18:21

Compound		CAS.				10 10	(A)		NEED	
Benzene		71-43-2		ι	JH	1	*	ug/L	4	10
Carbon Disulfide		75-15-0		Ĺ	JH	1	*	ug/L	4	10
Ethylbenzene		100-41-4		٠ (JH	1	*	ug/L	4	10
m p Xylene		1330-20-7		Ĺ	JH	1	*	ug/L	10	30
o Xylene		95-47- 6		٠ .	JH	1	*	ug/L	4	10
Toluene		108-88-3		Ĺ	JH	1	*	ug/L	4	10
Total Xylene					JH	1	*	ug/L	4	10
Surrogate Recoveries		1974 C				li l'err	7.0			
Bromofluorobenzene		460-00-4	1	10		1	*	%	70	130
Dibromofluoromethane	÷	1868-53-7	10	3.4		1	*	%	70	130
Toluene-d8		2037-26-5	9	7.7		1	*	%	70	130

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 Organie Analytica Rasilis

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-4

ACZ Sample ID:

L60805-02

Date Sampled:

01/19/07 8:30

Date Received:

01/23/07

Sample Matrix: Ground Water

Volatile Organics by GC/MS

Analysis Method: M8260B GC/MS

Extract Method:

Workgroup: WG220008

Analyst: jj Extract Date:

Analysis Date: 02/04/07 18:59

Compound	CAS	Recyclic						
Benzene	71-43-2		UH	1	*	ug/L	4	10
Carbon Disulfide	75-15-0		ŲН	1	*	ug/L	4	10
Ethylbenzene	100-41-4		UH	1	*	ug/L	4	10
m p Xylene	1330-20-7		UH	1	*	ug/L	10	30
o Xylene	95-47- 6		UH	1	*	ug/L	4	10
Toluene	108-88-3		UH	1	*	ug/L	4	10
Total Xylene			UH	1	*	ug/L	4	10
Surrogale Recoveries	CAS	-4-Francis						
Bromofluorobenzene	460-00-4	101.7		1	*	%	70	130
Dibromofluoromethane	1868-53-7	101.7		1	*	%	70	130
Toluene-d8	2037-26-5	102.5		1	*	%	70	130

(800) 334-5493

Organic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-5

ACZ Sample ID:

L60805-03

Date Sampled:

01/19/07 8:15

Date Received:

01/23/07

Sample Matrix:

Ground Water

/olatile Organics by GC/MS

Analysis Method: M8260B GC/MS

Extract Method:

Workgroup: WG220008

Analyst: jj Extract Date:

Analysis Date: 02/04/07 19:36

Compound	CAS	Result			100			PE1
Benzene	71-43-2		UH	1	*	ug/L	4	10
Carbon Disulfide	75-15-0	•	UH	1	*	ug/L	4	. 10
Ethylbenzene	100-41-4		UH	1	*	ug/L	4	10
m p Xylene	1330-20-7		UH	1	*	ug/L	10	30
o Xylene	95-47- 6		UH	1	*	ug/L	4	10
Toluene	108-88-3		UH	1	*	ug/L	4	10
Total Xylene		•	UH	1	*	ug/L	4	10
Surrogate Recoveries	CAS	% Recovery						
Bromofluorobenzene	460-00-4	103.3		1	*	%	70	130
Dibromofluoromethane	1868-53-7	105.9		1	*	%	70	130
Toluene-d8	2037-26-5	97.8		1	*	%	70	130

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

Phelps Dodge Sierrita

Project ID:

OJ00XN

Sample ID:

S-6

ACZ Sample ID:

L60805-04

Date Sampled:

01/19/07 7:50

Date Received:

01/23/07

Sample Matrix:

Ground Water

Volatile Organics by GC/MS

Analysis Method: M8260B GC/MS

Extract Method:

Workgroup: WG220008

Analyst: jj Extract Date:

Analysis Date: 02/04/07 20:14

Compound			(a) 1-11					27.6
Benzene	71-43-2		UH	1	*	ug/L	4	10
Carbon Disulfide	75-15-0		UH	1	*	ug/L	4	10
Ethylbenzene	100-41-4		UH	1	*	ug/L	4	10
m p Xylene	1330-20-7		UH	1	*	ug/L	10	30
o Xylene	95-47- 6		UH	1	*	ug/L	4	10
Toluene	108-88-3		UH	1	*	ug/L	4	10
Total Xylene			UH	1	*	ug/L	4	10
Surrogate Recoveries	PAG	% Recovery			1.2	1000		
Bromofluorobenzene	460-00-4	96.9		1	*	%	70	130
Dibromofluoromethane	1868-53-7	105.1		1	*	%	70	130
Toluene-d8	2037-26-5	96.4		1	*	%	70	130



Organic Reference

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

	oon Header	der 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)	
	LCL	Lower Control Limit	
	MDL	Method Detection Limit. Same as Minimum Reporting Limit. Allows for instrument and annua	I fluctuations.
	PCN/SCN	CN A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis	
	PQL	Practical Quantitation Limit	
	QC	True Value of the Control Sample or the amount added to the Spike	
	Rec	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)	
	RPD	Relative Percent Difference, calculation used for Duplicate QC Types	
	Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)	
	UCL	Upper Control Limit	
	Sample	Value of the Sample of interest	
0.0	Samula Ty		
	SURR	Surrogate LFM Laboratory Fortified	d Matrix
	INTS	Internal Standard LFMD Laboratory Fortified	d Matrix Duplicate
	DUP	Sample Duplicate LRB Laboratory Reager	
	LCSS	Laboratory Control Sample - Soil MS/MSD Matrix Spike/Matrix	Spike Duplicate
	LCSW	Laboratory Control Sample - Water PBS Prep Blank - Soil	
	LFB	Laboratory Fortified Blank PBW Prep Blank - Water	
encolada Encolada		Type Explanations	
	Blanks	Verifies that there is no or minimal contamination in the prep method	procedure.
	Control San	, , , , , , , , , , , , , , , , , , , ,	
	Duplicates		
1.	Spikes/Fort	Fortified Matrix Determines sample matrix interferences, if any. ers (Qual)	
	В	Analyte detected in daily blank	
	Н	Analysis exceeded method hold time.	
	J	Analyte concentration detected at a value between MDL and PQL	
	R	Poor spike recovery accepted because the other spike in the set fell within the given limits.	
	T	High Relative Percent Difference (RPD) accepted because sample concentrations are less that	n 10x the MDL.
	U	Analyte was analyzed for but not detected at the indicated MDL	
	V	High blank data accepted because sample concentration is 10 times higher than blank concen	
	W	Poor recovery for Silver quality control is accepted because Silver often precipitates with Chlor	ide.
	X	Quality contreol sample is out of control.	
	Z	Poor spike recovery is accepted because sample concentration is four times greater than spike	e concentration.
	P	Analyte concentration differs from second detector by more than 40%.	
	E	Analyte concentration is estimated due to result exceeding calibration range.	
		Analyte concentration is estimated due to matrix interferences. erences	
	(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.	
	(2)	EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (l), July 1990.
	(3)	EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (II), July 1990.
	(5)	EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, December 1.	per, 1996.
\$000kmm/m	(6)	Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995.	Name to the second seco
C. c.	n ner E		
	(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used	in the calculations.
-	(2)	Organic analyses are reported on an "as received" basis.	The boundary of the contract o
Cor	M thod Refere: (1) (2) (3) (5) (6) numents (1)	Analyte concentration is estimated due to matrix interferences. EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983. EPA 600/4-90/020. Methods for the Determination of Organic Compounds in Drinking Water (EPA 600/R-92/129. Methods for the Determination of Organic Compounds in Drinking Water (EPA SW-846. Test Methods for Evaluating Solid Waste, Third Edition with Update III, Decemble Standard Methods for the Examination of Water and Wastewater, 19th edition, 1995. QC results calculated from raw data. Results may vary slightly if the rounded values are used Organic analyses are reported on an "as received" basis.	II), July 1990. Der, 1996.

REPIN03.11.00.01

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Organic QC Summary

Phelps Dodge Sierrita

Project ID:

ACZ Project ID: L60805

Volatile Organics by GC/MS

M8260B GC/MS

WG220008

	Sample ID: WG220008LCSW	PCN/SC	N: SCN	0002607		Analyzed:	02/04/07 14:32
Comments		mple Found	Linus	Rec		Upper RPD	Limit Con
1,1,2-TRICHLOROETHANE	40	42.9	ug/L	107.3	70	130	
1,1-DICHLOROETHANE	40	48.4	ug/L	121.0	70	130	
1,1-DICHLOROETHENE	. 40	45.2	ug/L	113.0	70	130	
1,2-DICHLOROPROPANE	40	45.2	ug/L	113.0	70	130	
2-CHLOROETHYL VINYL ETHE	ER 40	41.6	ug/L	104.0	70	130	
BENZENE	40	46.8	ug/L	117.0	70	130	
CARBON TETRACHLORIDE	40	49	ug/L	122.5	70	130	
CHLOROBENZENE	40	48	ug/L	120.0	70	130	
DIBROMOCHLOROMETHANE	40	44.7	ug/L	111.8	70	130	
METHYLENE CHLORIDE	40	45.6	ug/L	114.0	70	130	
TETRACHLOROETHENE	40	50	ug/L	125.0	70	130	
TRICHLOROETHENE	40	47.4	ug/L	118.5	70	130	
BROMOFLUOROBENZENE (su	um)		%	108.9	70	130	
DIBROMOFLUOROMETHANE	(surr)		%	100.7	70	130	
TOLUENE-D8 (sum)			%	98.8	70	130	

LCSWD	Sample ID: WG220008LCSWD	PCN/SC	N: SCN	0002607		Anal	yzed:	02/04/07 15:10
Compound	Sent.	de Found	Units	Rec	Louis	i i i i i i i i i i i i i i i i i i i	RPD	Literal Chron
1,1,2-TRICHLOROETHANE	40	45.4	ug/L	113.5	70	130	5.7	36
1,1-DICHLOROETHANE	40	47.7	ug/L	119.3	70	130	1.5	30
1,1-DICHLOROETHENE	40	47	ug/L	117.5	70	130	3.9	30
1,2-DICHLOROPROPANE	40	45.2	ug/L	113.0	70 .	130	0	30
2-CHLOROETHYL VINYL ETH	HER 40	43.3	ug/L	108.3	70	130	4	30
BENZENE	40	44.7	ug/L	111.8	70	130	4.6	30
CARBON TETRACHLORIDE	40	48	ug/L	120.0	7 0	130	2.1	30
CHLOROBENZENE	40	48	ug/L	120.0	70	130	0	30
DIBROMOCHLOROMETHANE	40	45.1	ug/L	112.8	70	130	0.9	30
METHYLENE CHLORIDE	40	46.4	ug/L	116.0	70	130	1.7	30
TETRACHLOROETHENE	40	47.8	ug/L	119.5	70	130	4.5	30
TRICHLOROETHENE	40	46.7	ug/L	116.8	70	130	1.5	30
BROMOFLUOROBENZENE (S	sum)		%	99.2	70	130		
DIBROMOFLUOROMETHANE	E (surr)		%	104.9	70	130		
TOLUENE-D8 (surr)			%	100.2	70	130		

	WG220008PBW				Analyzed:	02/04/07 13:55
Compound	OC Sample Fo	itis al	11.0	lan en	Seven RED	(Ana)
1,1,1,2-TETRACHLOROETHANE		U	ug/L	-10	10	
1,1,1-TRICHLOROETHANE		U	ug/L	-30	30	
1,1,2,2-TETRACHLOROETHANE		U	ug/L	-10	10	
1,1,2-TRICHLOROETHANE		U	ug/L	-10	10	
1,1-DICHLOROETHANE		U	ug/L	-10	10	
1,1-DICHLOROETHENE		U	ug/L	-10	10	
1,1-DICHLOROPROPENE		U	ug/L	-10	10	
1,2,3-TRICHLOROBENZENE		U	ug/L	-10	10	

REPOR.01.06.05.01

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Organie QC Summary

helps Dodge Sierrita	ACZ Project ID: <i>L60805</i>				
roject ID: S-1			•		
1,2,3-TRICHLOROPROPANE	. U .	ug/L	-10	10	
1,2,4-TRICHLOROBENZENE	U	ug/L	-10	10	
1,2,4-TRIMETHYLBENZENE	U	ug/L	-10	10	
1,2-DIBROMO-3-CHLOROPROPANE	Ū	ug/L	-10	10	
1,2-DIBROMOETHANE	U	ug/L	-10	10	
1,2-DICHLOROBENZENE	U	ug/L	~10	10	
1,2-DICHLOROETHANE	U	ug/L	-10	10	
1,2-DICHLOROPROPANE	U	ug/L	-10	10	
1,3,5-TRIMETHYLBENZENE	U	ug/L	-10	10	
1,3-DICHLOROBENZENE	U	úg/L	-10	10	
1,3-DICHLOROPROPANE	U	ug/L	-10	10	
1,4-DICHLOROBENZENE	U	ug/L	-10	10	
2,2-DICHLOROPROPANE	U	ug/L	-10	10	
2-BUTANONE	U	ug/L	-30	30	
2-CHLOROETHYL VINYL ETHER	U	ug/L	-30	30	
2-CHLOROTOLUENE	U	ug/L	-10	10	
2-HEXANONE	U	ug/L	-30	30	
4-CHLOROTOLUENE	U	ug/L	-10	10	
4-ISOPROPYLTOLUENE	.U	ug/L	-10	10	
4-METHYL-2-PENTANONE	· U	ug/L	-100	100	
ACETONE	U	ug/L	-30	30	
ACRYLONITRILE	U	ug/L	-40	40	
BENZENE	. U	ug/L	-10	10	
BROMOBENZENE	U	ug/L	-10	10	
BROMOCHLOROMETHANE	· U	ug/L	-10	10	
BROMODICHLOROMETHANE	U	ug/L	-10	10	
BROMOFORM	U	ug/L	-10	10	
BROMOMETHANE	U ·	ug/L	-10	10	
CARBON DISULFIDE	U	ug/L	-10	10	
CARBON TETRACHLORIDE	U	ug/L	-30	30	
CHLOROBENZENE	U	ug/L	-10	10	
CHLOROETHANE	U	ug/L	-10	10	
CHLOROFORM	U	ug/L	-10	10	
CHLOROMETHANE	U	ug/L	-10	10	
CIS-1,2-DICHLOROETHENE	U	ug/L	-10	10	
CIS-1,3-DICHLOROPROPENE	U	ug/L	-10	10	
DIBROMOCHLOROMETHANE	U	ug/L	-10	10	
DIBROMOMETHANE	U	ug/L	-10	10	
DICHLORODIFLUOROMETHANE	U	ug/L	-20	20	
ETHYL BENZENE	U	ug/L	-10	10	
HEXACHLOROBUTADIENE	U	ug/L	-10	10	
ISOPROPYLBENZENE	· U	ug/L	-10	1 0	
M P XYLENE	U	ug/L	-30	30	
METHYL TERT BUTYL ETHER	U	ug/L	-10	10	
METHYLENE CHLORIDE	U	ug/L	-10	10	
NAPHTHALENE	U	ug/L	-10	10	
N-BUTYLBENZENE	U	ug/L	-10	10	
N-PROPYLBENZENE	U	ug/L	-10	10	
O XYLENE	U	ug/L	-10	10	



Pho	elps Dodge Sierrita	U ug/L -10 10 U ug/L -10 10 U ug/L -10 10 U ug/L -10 10						
Pro	oject ID: S-1						*	
- History of the Control of the Cont								
	SEC-BUTYLBENZENE	U	ug/L		-10	10		
	STYRENE	· U	ug/L		-10	10		
	TERT-BUTYLBENZENE	U	ug/L		-10	10		
	TETRACHLOROETHENE	U	ug/L		-10	10		
	TOLUENE	, U	ug/L		-10	10		
	TRANS-1,2-DICHLOROETHENE	Ü	ug/L	* *	-10	10		
	TRANS-1,3-DICHLOROPROPENE	U	ug/L		-10	10		
	TRICHLOROETHENE	U	ug/L		-20	20		
	TRICHLOROFLUOROMETHANE	U	ug/L		-10	10		
	VINYL ACETATE	U	ug/L		-10	10		
	VINYL CHLORIDE	U	ug/L		-10	10		
	BROMOFLUOROBENZENE (surr)		%	104.2	70	130		
	DIBROMOFLUOROMETHANE (surr)		%	101.4	70	130		
	TOLUENE-D8 (surr)		%	99.7	7 0	130		

Organic Extended Qualifier Report

Phelps Dodge Sierrita

N872 (8)	er percenta	PARAMETER	(1) W(2) (0) (0)	OLAL.	DESCRIPTION
L60805-01	WG220008	*All Compounds*	M8260B GC/MS	H1	Sample analysis performed past holding time.
L60805-02	WG220008	*All Compounds*	M8260B GC/MS	H1	Sample analysis performed past holding time.
L60805-03	WG220008	*All Compounds*	M8260B GC/MS	H1	Sample analysis performed past holding time.
L60805-04	WG220008	*All Compounds*	M8260B GC/MS	H1	Sample analysis performed past holding time.

Certification Qualifiers

Phelps Dodge Sierrita

ACZ Project ID: L60805

No certification qualifiers associated with this analysis

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60805

Date Received:

1/23/2007

Received By:

Date Printed:

1/23/2007

- 1) Does this project require special handling procedures such as CLP protocol?
- 2) Are the custody seals on the cooler intact?
- 3) Are the custody seals on the sample containers intact?
- 4) Is there a Chain of Custody or other directive shipping papers present?
- 5) Is the Chain of Custody complete?
- 6) Is the Chain of Custody in agreement with the samples received?
- 7) Is there enough sample for all requested analyses?
- 8) Are all samples within holding times for requested analyses?
- 9) Were all sample containers received intact?
- 10) Are the temperature blanks present?
- 11) Are the trip blanks (VOA and/or Cyanide) present?
- 12) Are samples requiring no headspace, headspace free?
- 13) Do the samples that require a Foreign Soils Permit have one?

YES	ЙO	NA
		X
Χ		
		X
Χ		
Χ		
Χ		
Χ		
Χ		
Х		
		Х
	Х	
Χ		
		X

Exceptions: If you answered πο to any of the above questions, please describe

N/A

Contact (For any discrepancies, the client must be contacted)

N/A

Shineling Contections

Cooler Id	Temp (°C)	Rad (µR/hr)
1729	2.7	14

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

Holes

REPAD.03.11.00.01

L60805: Page 30 of 32

Sample Receipt

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Phelps Dodge Sierrita

OJ00XN

ACZ Project ID:

L60805

Date Received:

1/23/2007

Received By:

Control of the second Second second

SAMPLE	CLIENT ID .	R < 2	G < 2	BK < 2	Y< 2	YG< 2	B< 2	0 < 2	T >12	N/A	RAD	ID
L60805-01	S-1		Y		Υ							
L60805-02	S-4		Y		Y							
L60805-03	S-5		Υ		Y							
L60805-04	S-6		Y		Y							

Abbreviation	Description	Container Type	Preservative/Limits
R	Raw/Nitric	RED	pH must be < 2
В	Filtered/Sulfuric	BLUE	pH must be < 2
BK	Filtered/Nitric	BLACK	pH must be < 2
G	Filtered/Nitric	GREEN	pH must be < 2

0 Raw/Sulfuric **ORANGE** pH must be < 2 Ρ Raw/NaOH PURPLE pH must be > 12 * Т Raw/NaOH Zinc Acetate TAN pH must be > 12 Υ Raw/Sulfuric YELLOW pH must be < 2

YG Raw/Sulfuric YELLOW GLASS pH must be < 2 N/A No preservative needed Not applicable

RAD Gamma/Beta dose rate Not applicable must be $< 250 \mu R/hr$

Sample IDs Reviewed By:	

^{*} pH check performed by analyst prior to sample preparation



ACZ Laboratories, Inc. **CHAIN of CUSTODY** 2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493 Report to: Name: Bill Dorris Address: 6200 West Duval Mine Rd Company: Phelps Dodge Sierrita E-mail: wdorris@phelpsdodge.com Green Valley Az 85614 Telephone: 520 648 8873 Copy of Report to: Jim Norris E-mail: jimn @hqcinc.com Company: Hydro Geo Chem Telephone: 520 293 1500 EX+ 112 Invoice to: Name: Address: Company: E-mail: Telephone: If sample(s) received past holding time (HT), or if insufficient HT remains to complete YES analysis before expiration, shall ACZ proceed with requested short HT analyses? NO If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified. PROJECT INFORMATION ANALYSES REQUESTED (attach list or use quote number) Quote #: Containers OJOOXN Project/PO #: Reporting state for compliance testing: Sampler's Name: Are any samples NRC licensable material? SAMPLE IDENTIFICATION DATE:TIME Matrix 1/19/2007 8:55 GW 1/19/2007 8:30 GW 5-4 1/19/2007. 8:15 GW SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify) Matrix REMARKS Please refer to ACZ's terms & conditions located on the reverse side of this COC. RELINQUISHED BY: DATE:TIME RECEIVED BY: DATE:TIME 12:00

APPENDIX E HYDRO GEO CHEM, INC. GROUNDWATER SAMPLING FORMS



HYDRO GEO CHEM, INC.

GPS:#594,92 Giacalone, Shrley

Groundwater Sampling Form

Project Name/N	Number	: 7830(a	. D. Sie	mta	GNU	Man.		Well No.: (1)	<u>N-640358-010207</u> 2107
•					-			r/Sampler:	
		250	ft WFI	LINE	ORMA		0,40	i/Campion. 4	4
Total Well Dept	:h (ft):	300	1800 AT		ORIMA				
Casing Diamete		n.):	(0"	Sc	reened	Interval (ft): F	=rom:	To:
Well/Packer De								235 (est.	
One Wetted Ca	sing Vo	olume: (a	-b) • d2 • 0.0						umes 504 72gal)
			FORMATIC						wording and configuration (
Time Started:	11081)	Time Com	pletec	1: <u> </u>	30	Т	 otal Purge Tir	ne: <u>30</u> min
Purge Method:*	tend	sto	Pump Sett	ing (d	epth):_		Т	otal Purge Vo	lume: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Actual or Extraction Elapsed Rate/Vol	1 200		, ,	Oth		D.O. O	dor		Notes
	21.	3/3/1	7.95						
3 1	121.1	5 3/2	2 7.89						
19 16.6	1 25.	5 320	M.79						
20 10.67	124	1 33	+ 7.88						
		*					·		
		SAMPLII	NG INFORM	IATIO	NAND	SAMPLE	= RF	CORD	:
Time Started:	1106	5	Time Com		11.	2 (1)	- IXL	alo	
	od, Typ	e of Samp	ling Pump o	r Baile	er: <u>6</u> 1	nple Co	West	ed fr. disch	age nearest vellhoo
		ontainer Typ		N	o. of tainers	Analysi Method	s	Preservative	Notes
W-640358-010207 6	50 (80il)	Plastic	250	-	2.	300.D	J	Nono	Awars + 804
W-140328-010207 102	1 **	Plastic	250		Ĭ _	200.7		HND3	Metala
				,					
				<u> </u>					
· .		QU	ALITY CON	 TROI	LSAMI	PLE REC	ORD)	
	Orig. S	Sample No.	Туре			ample No.	T	Time	
									_

H:\Field Forms\GWSampling.doc

HYDRO GEO CHEM, INC. Groundwater Sampling Form Well No.: ESP 1/55-12310 Project Name/Number: Santa GW Mon. Date: 1/3/2007 Recorder/Sampler: WELL INFORMATION Total Well Depth (ft): Casing Diameter ("d", in.): Screened Interval (ft): From:_____ Depth to Water ("b", ft): Well/Packer Depth ("a", ft): One Wetted Casing Volume: (a-b) • d2 • 0.0408 = 303 (a Gallons, (3 Casing Volumes) PURGE INFORMATION AND FIELD MEASUREMENTS Time Started: Time Completed: 13つ Total Purge Time: Purge Method: Pump Setting (depth): Total Purge Volume: Temp (°C / °F) Actual or D.O. Extraction Conductivity рН Other Odor Notes Elapsed Rate/Vol (mhos/cm) (mg/L) Time (Min) (gpm) 1325 1330 1333 SAMPLING INFORMATION AND SAMPLE RECORD Time Started: Time Completed: Sampling Method, Type of Sampling Pump or Bailer: (A) Sample No. Container Type Time Volume No. of Analysis Preservative Notes Containers Method 1200 7 1300 Done / HNO2 259 1 D10307

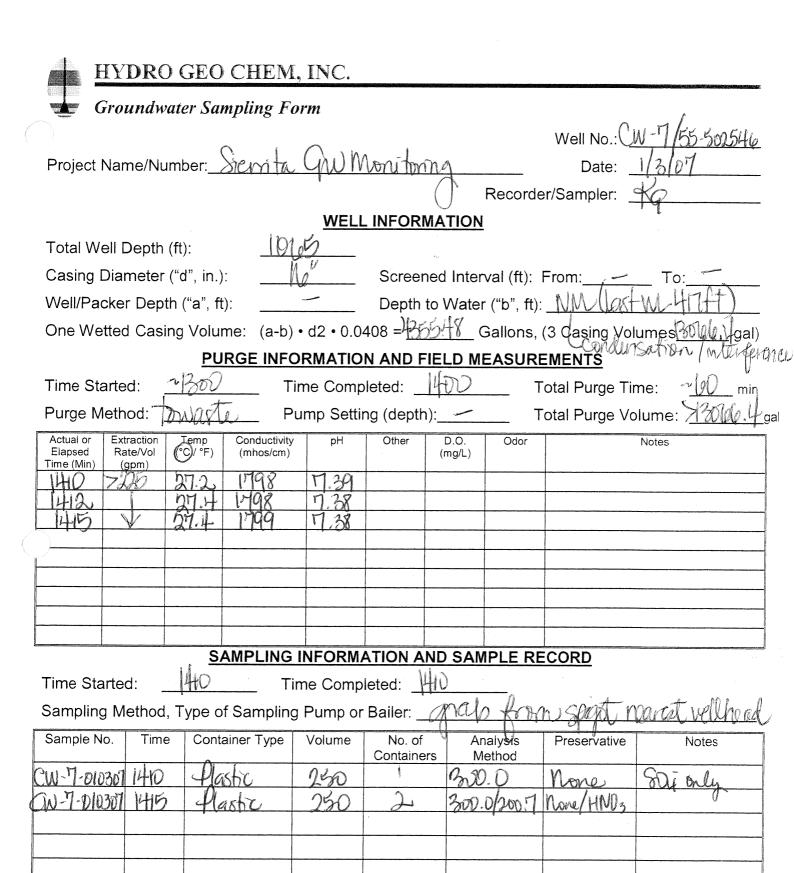
QUALITY CONTROL SAMPLE RECORD

Type	QC Sample No.	Time
	Туре	Type QC Sample No.

HY	DRO (GEO	CHEM,	INC.				
Gro	undwate	er San	npling Fo	rm				,
Project Nar	ne/Numl	perS _u	emta G	WMoni	foring.	Reco	Well No.: ᢓ Date: _ rder/Sampler: _	SP-1/55-623102 1/3/07
				WELL	INFORMA			17
Total Well [Depth (ft):	102	0				
Casing Dia	meter ("d	d", in.):		0	Screened	l Interval (ft): From:	To:
Well/Packe	r Depth	("a", ft)	, vector		Depth to	Water ("b",	ft): <u>360 </u>	
One Wette	d Casing	Volun	ne: (a-b)	• d2 • 0.04	108 <i>≧deble</i> i	12 Gallor	s, (3 Casing Vol	lumes <u>[0970.17</u> gal]
Time Starte	1	NOD_	Ti	me Comp	leted: 13	LD MEASU	Total Purge Ti	n 1005 A -
1		Temp C/°F)	Conductivity (mhos/cm)	рН	Other	D.O. Odo	r	Notes
l — , ' /a a , , l /	gpm)	x1.8	Fr12	7.18	<u>'</u>	(mg/L)		
1347	~1/-	NS .D	869	17.100				
1350		(8,10)	869	7.05				
					·			
		<u>S/</u>	AMPLING	INFORMA	ATION ANI	SAMPLE	RECORD	
Time Starte Sampling M		Sype of		me Comp g Pump or		alo from	discharger	reasest véllhe
Sample No.	Time	Conta	ainer Type	Volume	No. of Containers	Analysis Method	Preservative	Notes
Esp.1-010307	1350	Pla	istic	250	72	245.1/300	.O None/HNO3	
EST-1-010307	1355	4/10	istic	250	<u> </u>	300.0	None	SOLF trely
		-				-		
——————————————————————————————————————								
			OLIAI	ITY CON	TROL SAM	IPLE RECO)RD	

Orig. Sample No.	Type	QC Sample No.	Time

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QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Туре	QC Sample No.	Time

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HYDRO GEO CHEM, INC. Groundwater Sampling Form Well No.: () 4-9 Project Name/Number: Servita GW Monitoring Date: \ Recorder/Sampler: WELL INFORMATION Total Well Depth (ft): Screened Interval (ft): From: Casing Diameter ("d", in.): Depth to Water ("b", ft): Well/Packer Depth ("a", ft): One Wetted Casing Volume: (a-b) • d2 • 0.0408 = [4] Gallons, (3 Casing Volumes] gallons PURGE INFORMATION AND FIELD MEASUREMENTS Time Completed: Time Started: Total Purge Time: Total Purge Volume: Purge Method: Pump Setting (depth): Extraction Actual or Temp Conductivity Other D.O. Odor Notes (mg/L) Elapsed Rate/Vol (°C / °F) (mhos/cm) Makeli Time (Min) (gpm) SAMPLING INFORMATION AND SAMPLE RECORD Time Started: Time Completed: Sampling Method, Type of Sampling Pump or Bailer: (Sample No. Time Container Type Volume No. of Analysis Preservative Notes Containers Method 1440 Stri only W-9-010307 250 200.0

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Туре	QC Sample No.	Time

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W-9-010307



HYDRO GEO CHEM, INC.

Ground	water Sa	mpling F	orm						
			_	1				Well No.: ES	P-3/55-623104
Project Name/N	Number:	piemita (1W Moni	TONY	14	Date: 1/3/2007			
<u>,</u>					V	Rec	orde	r/Sampler: 🖞	9
			WELL	. INFC	ORMA	TION			e .
Total Well Dept	th (ft):	_\0	43 针						
Casing Diameter	er ("d", in.):	16	Scr	eened	Interval (ft): I	From:	_ To:
Well/Packer De			1					358.4	
One Wetted Ca	sing Volu	me: (a-b) • d2 • 0.04	408 =€	3145	₩ Gallo	ns,	(3 Casing Volu	ımes <u>]([3{j.5/</u> gal)
	PL	JRGE INF	ORMATIO	N AN	D FIEL	D MEAS	URE	<u>EMENTS</u>	E0 12
Time Started:	71030	-	Гime Comp	leted:	12	700)	Т	otal Purge Tim	ne: 300 M
Purge Method:	DSys	Im F	Pump Settir	ng (de	epth):_	Mit-moorke)	Т	otal Purge Vol	iume: 7/1226,52
Actual or Extraction Elapsed Rate/Vo Time (Min) (gpm)	(°C / °F)	Conductivit (mhos/cm		Othe		D.O. Oo ng/L)	dor		Notes
1300 700	728.1	424	795						
13/10 "	1 28.1	390	7.89						
	51.0	719							
	S	AMPI INC	INFORMA	ATION	VAND	SAMPLE	- RF	CORD	
Time Started:	1310		ime Comp		9	e e	_ !\L	<u> </u>	
Sampling Metho	od, Type					a /)		de Dont n	earcat well head
Sample No. Ti	me Con	tainer Type	Volume	1	o. of ainers	Analysi Method		Preservative	Notes
ESP-3-010307 131	15 PK	astic	250	2		s . 2		HW3/None	
SP.3-010307 131	Λ	astro	2500	1		300.0		Vme	
				'					
		AUQ	LITY CON	TROL	SAM	PLE REC	ORI		
	Orig. Sar		Туре			ample No.		Time	
		•				,	-		
	1	1		į.			1		E

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4 I	HY DR () GEO	CHEM	, INC.					
	Groundw	ater Sai	mpling Fo	orm					
			semta G		útonn g		 Recorde	Well No.: Cl Date: _l er/Sampler: _l	W-6/55-627485 /3/07 49/MA
			P	WELL	INFORM	MATION	<u> </u>		
Total W	ell Depth	(ft):	81	10					
Casing I	Diameter	("d", in.)	-	Q <u>'</u> '				From:	To:
	cker Dep		/	· posterior				245.0	
One We	etted Cas	ing Volu	me: (a-b)	• d2 • 0.0	408 = <u>255</u>	1.97	Gallons,	(3 Casing Volu	umes <u>1414. B</u> gal)
		PU	RGE INFO	<u>ORMATIO</u>	N AND F	IELD M	EASURI	<u>EMENTS</u>	
Time Sta	arted:	700) Ti	ime Comp	oleted: _	YOU)	Т	otal Purge Tin	ne: KD min
Purge M	lethod: [©]	D8481	IM) P	ump Setti	ng (depth):	Т	otal Purge Vo	lume: MAB
Actual or Elapsed	Extraction Rate/Vol	Temp (°C / °F)	Conductivity (mhos/cm)	рН	Other	D.O. (mg/L)	Odor		Notes
Time (Min)	(gpm)	May	11.0	11116		(9/2)			
1469	1	247	42	MAH					·····
1900	V	24.8	4274	8 17.73					
						······································			
									·
	1	S	AMPLING	INFORM	ATION A	ND SAI	UPLE R	ECORD	
Time Sta	arted:	MODE		me Comp	;	SOFA	-		
		d, Type o	of Sampling	-	7	praby	romus	mplpoint	<u>nearest vellher</u>
Sample N	No. Tim	e Conf	ainer Type	Volume	No. of Containe		nalysis ⁄lethod	Preservative	Notes
CW-6-DID3	307 150	O D	lastic	2F2O			D/O	hone	8Dif only
CWI-lo-DID	207 150		Mastic	2020	2.		17/3000		

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Туре	QC Sample No.	Time
CW-4-010307	Deplicate	GW-DUP-DIO3	v7A 1505

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CW-6-010307 1505

+> Collected 3 smpls Same as above. times for dup not on bottle or COC.

2007/300.0 None/HAD3

HYDRO GEO CHEN		51-5	100000 100000 1000000 1000000 1000000 100000000		
Groundwater Sampling F	Form			-St=	to/55-60853024
				Well No.: S	1-5/55-605531)
Project Name/Number: Senta	Gw Monite	ning		Date: _	H4101 1/10/07
	,		Record	der/Sampler: _	
	WELL IN	IFORMA			
Total Well Depth (ft):	FOT 637				
Casing Diameter ("d", in.):		Screened	Interval (ft):	: From:	To:
Well/Packer Depth ("a", ft):	·			t): 3100 ft (es	Ffr ADUR records
One Wetted Casing Volume: (a-b) • d2 • 0.0408	= 2357	Gallons	s, (3 Casing Vol	المستران ليساء المساء
<u>PURGE INF</u>	ORMATION A	AND FIEL	D MEASU	REMENTS	5331.74
Time Started: 1040	Γime Complete	ed:	<u> </u>	Total Purge Tir	me: <u>35</u> min
Purge Method: DSustam	Pump Setting	(depth):_	· parameters	Total Purge Vo	olume: (050 ga
Actual or Extraction Temp Conductiviting Elapsed Rate/Vol (°C / °F) (mhos/cm) Time (Min) (gpm)			O.O. Odor mg/L)		Notes
1042 nho 26.0 387 1045 ~ 200 26.8 386	1972				
1048 -220 272 365	7.03				
1100 ~230 277 384	7.61				
1110 200 27.6 387	7.64				
				,	
14630	INFORMATI	1	SAMPLE F	RECORD	
	ime Complete	and the same	ala 11 = 5	S	a torne
Sampling Method, Type of Samplin	<u> </u>			Ange pt. Via	exact wellhood
Sample No. Time Container Type	Volume	No. of [™] ontainers	Analysis Method	Preservative	Notes
5-603531-011007 1110 Plastic	250	Ĺ	300,0	None	Raw
5-608531-011007 III Plastic	250	2	200,7/200,0	home/MNDs	F
QUA	LITY CONTRO	OL SAME	PLE RECOF	RD	
Orig. Sample No.	Туре		ample No.	Time	
	7 1 -				<u> </u>

HYDRO G	EO CHEM, I	INC.				
Groundwater	Sampling Fort	n			- t	155-
	0 1 6	\ v			Well No.:	6/608530
Project Name/Numbe	r: <u>Sievrita G</u>	in Mo	witoring		Date: 4	184107 VIDION
			J	Recorde	er/Sampler:	Ka
	Con	WELL	INFORMA	TION		
Total Well Depth (ft):	837	7				and the second s
Casing Diameter ("d",		5		Interval (ft):		To:
Well/Packer Depth ("a				Water ("b", ft)	· // 1/1	THUNKICUAL)
One Wetted Casing V			127	\mathcal{D}^{-} LX $^{-}$ L		umes[] 54. [gal)
	PURGE INFOR		-1/ 11	1 1110		216
Time Started:		e Comp	001	0	Fotal Purge Tin	
Purge Method: DS			ng (depth):_		Total Purge Vo	4
Actual or Extraction Ter Elapsed Rate/Vol (°C / Time (Min) (gpm)		рН	1 1	D.O. Odor mg/L)		Notes
119 400 27	4 384	7.96				
		11. 11. 12. 18 ¹⁴				
	SAMPLING IN	NFORM	ATION AND	SAMPLE R	ECORD	
Time Started:			leted:			
Sampling Method, Ty						
		Volume	No. of	Analysis	Preservative	Notes
	101	1/2	Containers	Method	I Marci	<i>∞</i> .
6-608530-01007 1115	Plasho	<u> 250</u> 250	2,	3000	None /HND2	2

.		l			Containers	Method		
-	6-68880-01	1007115	Plastic	250		3000	None	R
,	6-608530-0	10071116	Plantic	250	2	300.0	None/HMO3	F
						_		

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Type	QC Sample No.	Time

HYDRO GEO CHEM, INC. Groundwater Sampling Form Well No.: St 1 Project Name/Number: Significant Date: 1/3/10 Recorder/Sampler: WELL INFORMATION This well runs continuous Total Well Depth (ft): Screened Interval (ft): From: Casing Diameter ("d", in.): Well/Packer Depth ("a", ft): Depth to Water ("b", ft): UKMML/NW #1 One Wetted Casing Volume: (a-b) • d2 • 0.0408 = _____ Gallons, (3 Casing Volumes PURGE INFORMATION AND FIELD MEASUREMENTS Time Started: W. Time Completed: Total Purge Time: ___ min Purge Method: Pump Setting (depth): Total Purge Volume: Actual or Extraction Conductivity Other D.O. Odor Notes Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L) Time (Min) (gpm) 1140 1750 302 SAMPLING INFORMATION AND SAMPLE RECORD Time Started: Time Completed: Sampling Method, Type of Sampling Pump or Bailer: Sample No. Time Container Type Volume No. of Analysis Preservative Notes Containers Method St. 17 41/1440 - 0/1007 1140 900.0 Kaw none 300,0/2/vi 7-566940-011087

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Туре	QC Sample No.	Time

HYDRO GEO CHEM, INC.									
Groundwater Sampling Form 55-434037									
Well No.:									
Project Name/Number: Siemta aw Manitoning 78306.2 Date: 1/8/07									
Recorder/Sampler: <u>KG</u>									
WELL INFORMATION									
Total Well Depth (ft):									
Casing Diameter ("d", in.):Screened Interval (ft): From: To:									
Well/Packer Depth ("a", ft): Depth to Water ("b", ft): Could not get ox (water)									
One Wetted Casing Volume: (a-b) • d2 • 0.0408 = 855.51 Gallons, (3 Casing Volumes begins gal)									
PURGE INFORMATION AND FIELD MEASUREMENTS YOUR ADJUST									
Time Started: Time Completed: Total Purge Time: Min									
Purge Method: Total Purge Volume: 200 g									
Actual or Extraction Temp Conductivity pH Other D.O. Odor Notes Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L)									
Time (Min) (gpm)									
1/20 Laton 24.6 265 7.64									
11361 Idom 24.9 264 7.086849									
1133 Igom 25.0 263 7.07									
1135 Japan 25.1 264 7.68									
1138 109jm 25.1 264 7.68									
SAMPLING INFORMATION AND SAMPLE RECORD									
Time Started: 4 HTC 1040 Time Completed: 144 1046 Kg									
Sampling Method, Type of Sampling Pump or Bailer: Way Smpl Wortal tank dicharge									
Sample No. Time Container Type Volume No. of Analysis Preservative Notes									
60 63 07 -010007 Plantic 250 2 300.0/200.7 HNO3/None City									
GWG3407 210807 Plestic 250 1 300-0 12 raw									
(V34037)									
QUALITY CONTROL SAMPLE RECORD									
Orig. Sample No. Type QC Sample No. Time									

HYDRO GEO CHEM	, INC.				
Groundwater Sampling F	orm			(Singson W-(129055-01080
Project Name/Number: 1800	2		Recorde	Well No.: ① Date: ② or/Sampler: ③	W-439055-01080 18107 Kg
10.	WELL	INFORMA	TION		
Total Well Depth (ft):	el ft				
Casing Diameter ("d", in.):	1" V		Interval (ft):	4 4	To:
Well/Packer Depth ("a", ft):	27774	Depth to	Water ("b", ft):	Dn 14107.	= 103.45
One Wetted Casing Volume: (a-b)	• d2 • 0.0	408 = <u>M</u> 9	্রিপু Gallons,	(3 Casing Volu	umes <u>(M</u> gal)
PURGE INF	ORMATIO	N AND FIE	_D MEASURE	<u>EMENTS</u>	Kann
		leted:	3.18 T	otal Purge Tin	ne: "min
Purge Method	Pump Setti	ng (depth):_	***************************************	otal Purge Vo	lume: <u>vII)</u> ga
Actual or Extraction Temp Conductivit Elapsed Rate/Vol (°C / °F) (mhos/cm) Time (Min) (gpm)	, , ,	1	D.O. Odor mg/L)		Notes
1.05 ~ Japu 24.7 380	7.55				
1:10 25.2 378	7.58				
1:16 25.3 301	7.50				M. Charles
SAMPLING	NEODM	ATION AND	CAMPIEDE	CODD	
1210		12	SAMPLE RE	CORD	spreament well
Sampling Method, Type of Samplin	ime Comp g Pump or		rap from	Inlet for	esdence head
Sample No. Time Container Type	Volume	No. of Containers	Analysis Method	Preservative	Notes
1639055-010807-1325Plastic	750	2	300/200	7 HNO3/,	we flked
-639055-008071320 Plastic	USU	C	300.0	none	ran
OLIA	LITY CON	TROL SAM	PLE RECORI	<u> </u>	

Orig. Sample No.	Туре	QC Sample No.	Time
	TO BE A STATE OF THE STATE OF T		

HYDRO GEO CHEM, INC. Groundwater Sampling Form Well No. (W-201214-119 Date: 1807 Recorder/Sampler: WELL INFORMATION Total Well Depth (ft): Casing Diameter ("d", in.): Screened Interval (ft): From: To: Well/Packer Depth ("a", ft): Depth to Water ("b", ft): ☑ Gallons, (3 Casing Volumes 💯 One Wetted Casing Volume: (a-b) • d2 • 0.0408 = PURGE INFORMATION AND FIELD MEASUREMENTS Time Started: Time Completed: Total Purge Time: Purge Method: Pump Setting (depth): Total Purge Volume: ~ Actual or Extraction Temp Conductivity Other D.O. Odor Notes Rate/Vol (°C / °F) Elapsed (mhos/cm) (mg/L) Time (Min) (gpm) 1445 odom SAMPLING INFORMATION AND SAMPLE RECORD Time Started: Time Completed:

gal

Time Started: ______ Time Completed: _______

Sampling Method, Type of Sampling Pump or Bailer: Grant C Sprint heart well had

	Sample No.	Time	Container Type	Volume	No. of	Analysis	Preservative	Notes
					Containers	Method		V de la constante de la consta
q	W-20124-01090	12/455	Plesic	250	2	300.0 (200.	7 HAUDS/10	or filterd
Wi	-20(214.01090	1 1450	Plastic	Vso		300.0	roce	rew

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Туре	QC Sample No.	Time

	(YDR) GEO	CHEM	, INC.						NOTE SEEDEN AFFEC AND AND TO SEASON STATE OF THE SEASON STATE OF T
$\oint G$	Froundw	ater Sai	npling Fo	orm						55-603428
									Well No.: 🕠	J-I
Project N	Project Name/Number: 18306.2 Date: 19107									907
								Recorde	r/Sampler: 💃	G
	WELL INFORMATION									
Total We	ell Depth	(ft):	_ Gi	<u>tb</u>						
Casing [Diameter	("d", in.)		16"	Scree	ned	Inter	val (ft): F	-rom:	To:
Well/Pac	•	•	,						221 ft	
One We	tted Cas	ing Volui	me: (a-b)	• d2 • 0.04	408 =	1378	A.	Gallons, (3 Casing Volu	umes 3265.8 (Gal)
		PU	RGE INFO				_		MENTS (124.00724-10
Time Sta	arted:	1800	- 1 /	ime Comp	•	de.	0	T	otal Purge Tin	ne: 📶 min
Purge M	ethod:	<u> 425</u>	Fr/Min P	ump Settir	ng (deptl	า):			otal Purge Vo	lume: \3 3.85.8 ga
Actual or Elapsed	Extraction Rate/Vol	Temp (°C / °F)	Conductivity (mhos/cm)	рН	Other	1	i.O. ig/L)	Odor		Notes
Time (Min)	(gpm) 721	22.4	4210	7.94						
0907	721	24.8	429	7.96						
0410	7725	96.8	424	8.00						
	-									
						-				
			AMPLING	INFORM	ATION /	ND	CAN	ADIE DE	COPD	
Time Sta	artod:	99100 99100		ime Comp		(MD)	3 <u>AIV</u>	IPLE KE	Why disc	harged to system
			of Sampling			AN CO	ih I	200m2	sant non	rest well had
Sample N			ainer Type	Volume	No. o			nalysis	Preservative	Notes Notes
			.airiei Type		Contain			lethod	Freservative	Notes
E1V-1-6034	-	Λ	astro	250		h	- 5° -9 /	0.0	None	*Kaw 80.4
11-1-103478.	7 Papala	MII 4	lastic	150	2	ne	10.11/2	hid.o t	NO3/None	tiltered
<u> </u>										

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Type	QC Sample No.	Time

d E	IYDRO) GEO	CHEM.	, INC.					
J 6	Groundw	ater San	npling Fo	rm				55-	.603429
								Well No.: 🕤	V-2
Project I	Name/Nu	ımber:	78304.	2				Date: ╽ <u>/</u>	9/07
							Recorde	er/Sampler: 🛨	G
			,	WELL	. INFORM	MATION			
Total We	ell Depth	(ft):	50	e0					
Casing [Diameter	("d", in.)	:	4	Screen	ed Inter	val (ft):	,	To:
Well/Pag	cker Dep	th ("a", ft):		Depth	to Water	("b", ft):	85.3	with loft corner
One We	tted Cas	ing Volur	me: (a-b)	• d2 • 0.04	408 = <u>39</u>	的一	Sallons,	(3 Casing Volu	umes 17140.99gal)
		<u>PU</u>	RGE INFO	RMATIO	N AND F	IELD MI	EASURI	<u>EMENTS</u>	5806.76
Time Sta	arted:	0951	Ti	me Comp	leted:	006	Т	otal Purge Tim	ne: 1815 min
Purge M	lethod:	adling	Well P	ump Settir	ng (depth):		otal Purge Vol	lume: <u>13470 </u>
Actual or Elapsed	Extraction Rate/Vol	Temp (°C/°F)	Conductivity (mhos/cm)	На	Other	D.O. (mg/L)	Odor		Notes
Time (Min)	(gpm)	21.2	UBI	7,58					
0934	898	23.0	635	7.62					
1000 1000	698	23.4	430	7.67					
1905	498	23.6	426	7.108					
		1							
.									
		11	AMPLING				IPLE RI		d do Suctomo
Time Sta		1006		me Comp		100	0	discharge	001
Samplin	g Method	d, Type c	of Sampline	g Pump or	Bailer: <u>4</u>	gray)	from	Sport Ma	mit will head
Sample N	No. Tim	ie Cont	ainer Type	Volume	No. of Containe		nalysis lethod	Preservative	Notes
V-2-60342°	1-010907 1	206 P	astic	2500	l	300	***************************************	None	Kaw
1-2-40342	9-010907 1		lastro	250	2		0.008	HN03/none	Filtered
					1		·		To a second seco

QUALITY CONTROL SAMPLE RECORD

	Orig. Sample No.	Type	QC Sample No.	Time
	:		enter de la constitue de la co	
L				

HYDRO GEO CHEM, INC. 55-208625 Groundwater Sampling Form Well No.: SI Well /GV Water Project Name/Number: 1806.2 Recorder/Sampler: WELL INFORMATION Total Well Depth (ft): Casing Diameter ("d", in.): Screened Interval (ft): From: Well/Packer Depth ("a", ft): Depth to Water ("b", ft): THEO LOWER (3 Casing Volumes One Wetted Casing Volume: (a-b) • d2 • 0.0408 = 420 PURGE INFORMATION AND FIELD MEASUREMENTS Time Started: Time Completed: Total Purge Time: Total Purge Volume: 12925.4 Purge Method: 10 Pump Setting (depth): Actual or Extraction Conductivity Other Notes Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L)Time (Min) (gpm) 306 **N50** 1155 228 SAMPLING INFORMATION AND SAMPLE RECORD Time Started: Time Completed: Sampling Method, Type of Sampling Pump or Bailer: Until Sample No. Time Container Type Analysis Volume No. of Preservative Notes Containers Method Stuell 208825-010907 1155 3.00.0 240 None STUELL-208825.019997 1156 2 240

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Туре	QC Sample No.	Time

H	YDRO	GEO CHE	M, INC.			4701	NID
G G	roundwa	ater Sampling	Form			Canoa	Ranch locover 5-586729
						Well No.: 🏂	5-586729
Project N	lame/Nu	mber: <u> </u>). <u>J</u>	-10-01-01-01-01-01-01-01-01-01-01-01-01-		Date:	19/07
					Recorde	er/Sampler:	*
			WELL	. INFORMA	TION		•
Total We	ll Depth	(ft):	500				
Casing D	iameter	("d", in.):	14"	Screened	Interval (ft):	From:	To:
Well/Pac	ker Dept	h ("a", ft):	Managasia.	Depth to	Nater ("b", ft):	150.7 + 10	Rt (correction)
One Wet	ted Casi	ng Volume: (a	-b) • d2 • 0.0 ₀	408 = 2465	32 Gallons,	(3 Casing Volu	imes PHt. D gal)
				T die	ついり _D MEASURE		3759.27
Time Sta	rted: _	1345	Time Comp	oleted:	<u>+0/</u> T	otal Purge Tim	ne: <u>1,2</u> min
Purge Me	ethod:	System		ng (depth):_	•	otal Purge Vol	LADA.
Actual or Extraction Temp Conductivity pH Other D.O. Odor Notes Elapsed Rate/Vol (°C / °F) (mhos/cm)					Notes		
Time (Min)	(gpm)	25.1 582	1 7.62				
1352	1100	24.4 581	7.69				
13559	1100	24.2 56H	11.4.1				
1400	((0)	24.2 580	7.66				
		CAMDIII	NC INFORM	ATION AND	CAMPIED	CODD	
Time Sta	urto di	Marie SAIVIPLII			SAMPLE RE	ECORD	
	-	, Type of Samp	Time Comp Oling Pump o	71	an froms	Spoint nau	ectivell hood
Sample No				No. of Containers	Analysis Method	Preservative	Notes
anoa Rench 164729 - 010	<u>-</u> 	00 Alastic	250	Containers	300.0	Rone	Raw
anoa Ranch 586129-010	- 1	to Plastic		2,	200.7/200.0	HNO3/ none	Filtrid,
				,			
			IALITY CON	TDOL CARE	DI E DECCE		
					PLE RECOR		n
		Orig. Sample No.	Type	QCS	Sample No.	Time	

HYDE	RO GEO	CHEM.	INC.		7/ *				
Ground	dwater Sam	pling Fo	rm					Quihuis	
		***						Well No.: 5	5-427429
Project Name/	Number:	18306	.4					Date: 🗓	ulon
						F	Recorde	r/Sampler: 꿏	9
		20	WELL	INFO	ORMA	<u>TION</u>			
Total Well Dep	oth (ft):	37	<u> </u>						
Casing Diamet	ter ("d", in.):		<u> </u>					From:	To:
Well/Packer De								26H R	, , , , , , , , , , , , , , , , , , , ,
One Wetted Ca	asing Volum	e: (a-b)	• d2 • 0.04	408 =	1787	₩ G	allons, (3 Casing Volu	umes <u>353</u> gal)
	11-0		RMATIO						8 gm/
Time Started:	100							otal Purge Tin	12.5
Purge Method:		atil CharPu	ump Settir	ng (de	epth):_	3		otal Purge Vo	lume: Di
Actual or Extraction Elapsed Rate/Volume (Min) (gpm)	ol (°C/°F)	Conductivity (mhos/cm)	pH	Othe		D.O. mg/L)	Odor		Notes
Time (Min) (gpm)		1030	17.3						
1104 10	94.3 94.1	1023	17.22				·		
MONITO 10	24.4	1032	7.23						
10	19t.3	1047	77.23						
	SA	MPLING	INFORMA	ATIOI	N AND	SAM	PLE RE	CORD	
Time Started:	116		me Comp		4 4	Vo		MARIAN	
Sampling Meth	od, Type of	Sampling	Pump or	Baile	er: OV	26 x	Jon S	Sp noarest	well head
Sample No. T	ime Contai	ner Type	Volume		o. of ainers		alysis thod	Preservative	Notes
V-427429-01107 i	115 Plas	tio	260	00110	1	300		None	Raw
0-627429-011107	Variation of the same of the s	she	250	0	2	200:1	1300.0	HND2/More	Fittered
					***************************************			vr	
									2012
		QUAL	ITY CON	ΓROL	SAM	PLE R	ECORE)	
	Orig. Samp		Туре			ample N		Time	
					1. 1				-

HYDRO GEO CHEM, INC		Jon Simons			
Groundwater Sampling Form			-	AC . I	
		\	Well No.: 55 2 Date: VIII	21142	
Project Name/Number: TRMO.2		The state of the s	Date: <u>VIII</u>	5'7	
		Recorder/	Sampler: <u>4</u>		
7. P	ELL INFORMATI	ON	•		
Total Well Depth (ft):					
	Screened I			0:	
	Depth to W			D/02	
One Wetted Casing Volume: (a-b) • d2 •				s <u>400.3</u> gal)	
Time Started: 1232 Time C				111	
Purge Method: Tromtankunti de Pump s			tal Purge Values	min NGS	
		O. Odor	Notes		
Elapsed Rate/Vol (°C / °F) (mhos/cm) Time (Min) (gpm)		g/L)		1.0	
1241 15 132 445 7	,00				
10110 11 21 100	00				
1245 15 24.3 128 M	113				
1250 5 235 439	1.63				
1251 45 23.7 437 7	163				
SAMPLING INFO	DRMATION AND	SAMPLE RE	CORD		
		51			
Sampling Method, Type of Sampling Pur	np or Bailer: _ Gh	ab fr. Sfr	int noarcet w	ellhoad	
Sample No. Time Container Type Volu	ume No. of Containers	Analysis Method	Preservative	Notes	
GW-549142-011107 1250 Plastic 2	50 1	300,00	None	Raw	
1 W-529142-011107 1251 Plastic 2"	n 2	200.7/300.0	HWO3/None	Filtered	
QUALITY	CONTROL SAM	PLE RECORE	<u> </u>		

Туре

QC Sample No.

Time

Orig. Sample No.

Groundwater Sampling Form	
= Growth and Sumpting Form	
Project Name/Number: Well No.: Date:	55-549357 VII 07
Recorder/Sampler:	Kg
WELL INFORMATION	·
Total Well Depth (ft):	
Casing Diameter ("d", in.): Screened Interval (ft): From:	To:
Well/Packer Depth ("a", ft): Depth to Water ("b", ft): 15 Casing Volume: (a-b) • d2 • 0.0408 = 15 Casing Volume: (3 Casing Volume)	THE HINDRICE
·	8) 8) .
Time Started: Total Purge	(11-11-
Purge Method: Total Purge \\ Purge Method: Total Purge \\ Purge Method: Total Purge \\	
Actual or Extraction Temp Conductivity pH Other D.O. Odor	Notes
Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L)	
1544 15 36.0 724 7.61 1546 15 368 733 723 740	
1550 15 249 733 7.59 Zallill	
SAMPLING INFORMATION AND SAMPLE RECORD	
Time Started: Time Completed:	tiodae are
	MSCharge
Containers Method	ve Notes
599357-01107 1551 Plastic 250 1 300.0 12 19 None	Kaw
-579357-011107 1552 Plastic 250 2, 300,0/9007 None/HNO	3 Filthea
QUALITY CONTROL SAMPLE RECORD	
Orig. Sample No. Type QC Sample No. Time	

HYDRO	SEO CHEM,	INC.			Ca	GV		
	r Sampling Foi				V			
Project Name/Numb	er. <u>Semita</u> C	zw mo	nitonna	78304.1 708: Record	Well No.: 50 Date: 1	0-501760 115/07		
	015	WELL	INFORMA	TION		7 9		
Total Well Depth (ft)	: 155	<u>tl.</u>						
	Casing Diameter ("d", in.): Well/Packer Depth ("a", ft): Depth to Water ("b", ft):							
Well/Packer Depth (d0 - 0 04			,			
One Wetted Casing	PURGE INFO		_	Ţ		mes <u>AU(1</u> gal)		
Time Started:					Total Purge Tim	255		
Purge Method: 10			•					
Actual or Extraction T	emp Conductivity	pH	Other	D.O. Odor		Notes		
Time (Min) (gpm)	C/°F) (mhos/cm)	Мао	1)	ng/L)				
1157 850 22	1.7 786	7.30						
1200 (50 2)	1.8 1710	7.31						
1204 850 2	R9 MUM	7.32						
1209 (50) 28	3.0 767	7.31						
	SAMPLING	INFORMA	ATION AND	SAMPLE	RECORD			
Time Started:	20.6		eted: 120	1				
Sampling Method, T	ype of Sampling	Pump or	Bailer: 🕡	ab from	US. Arint nea	rot well head		
Sample No. Time	Container Type	Volume	No. of	Analysis	Preservative	Notes		
W-501760-011507 1209	5 Plastic	2500	Containers	Method 300.0	None	Raw		
W-501760-011509 1200	1/10 7	250	2	200.7/300	1 1=	Filtered.		
			,	-				
	QUAL	ITY CONT	ROL SAM	PLE RECO	RD			
Orig	g. Sample No.	Туре	QC S	sample No.	Time			
e e e e e e e e e e e e e e e e e e e		PVP III - V						
H:\Field Forms\GWSampling.de	oc							

HYDR	O GEO CHEI	M, INC.	The second of the second		Johns	79 ()	
Ground	water Sampling	Form					Marketonia.
Project Name/N	umber: <u>SiCM</u> t	x Gwm	aniton		Well No.: Date:	YITOT	
		WELL	INFORM	ATION		ч	
Total Well Depth	n (ft):	noun [no	tin ADM	Rdb 7e8	f. Goyt. Porc	alcs.	
Casing Diamete	i (u , iii.).	<u> </u>	Screene	ed Interval (ft)	: From:	To:	
Well/Packer Dep	oth ("a", ft):		Depth to	Water ("b", f	t): 238.3 H	(minuslottorr.=2	W3f
One Wetted Cas	sing Volume: (a-b					olumes <u>[[97.5]</u> g	al)
Time Started:	1120			ELD MEASU			
Purge Method:	n d	Time Compl		200	Total Purge T	0.4	nin
Actual or Extraction	Temp Conductivi	Pump Settin	g (depth):		Total Purge V		gal
Elapsed Rate/Vol Time (Min) (gpm)	(°C / °F) (mhos/cm		Other	D.O. Odor (mg/L)		Notes	
1138 7.5gpm	13.1 446	M.78					
1145 7.5gm	11.71 45	7.70					
1150 750	117 453	7.17					
15/1900 7.5	11.8 462	HAM					
1200 7.5	11.8 400	7.711					
7.5							
	, m	INFORMA	h -	SAMPLER	ECORD		
Time Started:		ime Comple		201	1		
Sampling Method				7.	nle discha	gu	
Sample No. Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Notes	
W-(1340360011707 13		250	Î	300,0	none	Raw	
W-03+036-011-707 12	of Plastic	250	2	300,0/20017	None (HNO;	Filtered	
							_
	QUAL	ITY CONTR	OL SAM	PLE RECOR	D		
	Orig. Sample No.	Туре	QC S	ample No.	Time		
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HYDRO GEO CHEM	I, INC.		CN-0	2 YCWN
Groundwater Sampling Fo	orm			
\bigcirc			Well No.: 💆	5-5091604
Project Name/Number:	Montonin	15301.2	Date:	11807
		Recor	der/Sampler:	Kg
	WELL INF	ORMATION		
Total Well Depth (ft):				***************************************
Casing Diameter ("d", in.):		creened Interval (ft)		
Well/Packer Depth ("a", ft): One Wetted Casing Volume: (a-b)	D6	epth to Water ("b", t	t): <u>102.19</u>	421072
		ND FIELD MEASU		mes <u> 7,40.10</u> gal)
		d: 1015		ie: 15 min
Purge Method: 10 Sustem - Waste				
Actual or Extraction Temp Conductivity	y pH Ot	her D.O. Odor		Notes
Elapsed Rate/Vol (°C / °F) (mhos/cm) Time (Min) (gpm) (% 3.13	1.90	(mg/L)		
1005 314 202 1011	4.65			
1010 21.4 20.2 1509	(4.93			
1012 31.1 30.1 1701	V . W			
SAMPLING	INFORMATIO	ON AND SAMPLE	RECORD	
ION	ime Completed		<u>ILLOOKD</u>	
Sampling Method, Type of Samplin	•		mspiratau	ellhoal
Sample No. Time Container Type		No. of Analysis	Preservative	Notes
559604 Pasto	240	ntainers Method	None	Paris
90 509604-011807 1016 Mastic	250	2 300.0/200		Kaw
QUA	LITY CONTRO	L SAMPLE RECO	RD	
Orig. Sample No.	Туре	QC Sample No.	Time	

HYDRO GI	EO CHEM,	INC.				
Groundwater	Sampling Fo	rm				
	gargeren,				Well No.: 5	5-77707
Project Name/Numbe	r: <u> </u>	6.2			Date:	-53-07
				Recorde	r/Sampler:	MA
		WELL	INFORMAT	TION		, ,
Total Well Depth (ft):	40					
Casing Diameter ("d",	in.): <u>6</u>	100 Y	Screened	Interval (ft): I	From:	_ To:
Well/Packer Depth ("a	a", ft):		Depth to V	Vater ("b", ft):	300' (ADWR record
One Wetted Casing V	olume: (a-b)	• d2 • 0.04	.08 = <u>146.</u>	8 Gallons,	(3 Casing Volu	ımes <u> 44/</u> gal)
	PURGE INFO	RMATION	N AND FIEL	D MEASURE	EMENTS	
Time Started: , 16	<u>10 </u>	me Compl	eted:	554 T	otal Purge Tim	ne: <u>44</u> min
Purge Method:	aste Pi	ump Settir	ng (depth):_	Opening the same of the same o	otal Purge Vol	ume: 44/ c
Actual or Extraction Tell Elapsed Rate/Vol (°C / Time (Min) (gpm)		рН		O.O. Odor ng/L)		Notes
1615 10 27	1 395	7.64		None	Slightly brow	n w/Black particl
1670 72	= 30/	7.61				
1636 24		7.61				
1635 26	1 397	7.59				
16 45 28	0 400	7,56				
16,50 28	1 400	7.56				
	SAMPLING	INFORM	ATION AND	SAMPLE RE	ECORD	
Time Started:		me Comp	1.	56		
Sampling Method, Ty	rpe of Sampling	g Pump or	Bailer: 4	ab from	Sporta	e wellread
Sample No. Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Notes
N-577707-012307 1656	Plastic	250	1	300.0	None	Raw
N-577707-01307 1654	Plastic	250	Qt 1	200.7/300,0	None	Filtered
1-577707-012307 1652	Plastic		/	200.7/300.0	HNOz	Filtered
	OHAL	ITY CON	TPOL SARA	PLE RECOR		

QC Sample No.

Time

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Orig. Sample No.

Туре

HY	HYDRO GEO CHEM, INC.						55-207982		
Gro	undi	vater Sar	npling F	orm					
Project Nar	me/N	umber:	7630	06.Z			Well No.: <u>(</u> Date: _	CW-10 1-24-0)	
						Reco	rder/Sampler: 🔏	MA	
			14. 1	^	INFORMA	TION			
Total Well I	Depti	n (ft):	114	U					
Casing Dia	mete	r ("ď", in.)	: <u> </u>	4): From:		
Well/Packe				Quantitative of the same of th	Depth to	Water ("b",	ft): When 1/3/07	= 177.2ft	
One Wette	d Cas	sing Volur	me: (a-b) • d2 • 0.04	408 = <u>10,000</u>	1925 Gallor	s, (3 Casing Vo	lumes 2016 (Lgal)	
		PU	RGE INF	ORMATIO	N AND FIE	LD MEASL	REMENTS		
Time Starte		1130		ime Comp	leted: 1	135	Total Purge Ti	me: <u>6</u> min	
Purge Meth	nod:4	Imped	mtosys	amp Settir	ng (depth):_	p	Total Purge Vo	olume: <u>John J</u> aa	
Elapsed R	traction ate/Vol (gpm)	Temp (°C / °F)	Conductivit (mhos/cm		Other	D.O. Odo (mg/L)	dischar	Notes	
1125 17	700	28,3	173	7,88			vellipin	uped into system	
1130	1	29.8	347 386	7.91			· Well on	ypon amivalle	
1132	V	30,2	385	7.90			Jacorapeacir	IID ONSIGNO	
	· · · · · · · · · · · · · · · · · · ·	S	AMPLING	INFORM	ATION AND	SAMPLE	PECOPO		
Time Starte	ed:	1/35	-	ime Comp			RECORD		
Sampling M						ab fr. Si	and andl	Mal	
Sample No.	Tir		ainer Type	Volume	No. of	Analysis	Preservative	Notes	
					Containers	Method		Notes	
W-10-012407	113		sfie	250	<u></u>	300.0	None	Ray	
W-10-01240]	1//3	56 Pla	stie	250	2	200.7/300	D.O HNOZ /None	Filtered	
A A A A A A A A A A A A A A A A A A A									

	<u> </u>		QUA	LITY CON	TROL SAM	IPLE RECO	DRD		
		Orig. Sam	March Commence of the Commence	Туре		Sample No.	Time		
		· · · · · · · · · · · · · · · · · · ·							

HYDI	RO GEO	5	55.543600							
Ground	twater Sa	mpling Fo	rm							
Project Name/	Number:	783	306.2			Well No.: _e	CW-8 1-24-07			
	Recorder/Sampler: WA									
Total Well Depth (ft): Casing Diameter ("d", in.): WELL INFORMATION (Casing depth = 970ff) Screened Interval (ft): From:										
Well/Packer D						t): on 1307W				
			• 42 • 0 04	108 - 2029 2	194 Gallons	c). Oxcitor / (a)	umes <u>(10878-8</u> 8al)			
							umes <u>((()0/0-0</u> gai)			
Purge Method: Discharged 10 Pump Setting (depth): Total Purge Volume: 32.04 min Achal: Total Purge Volume: 32.00 gal										
Actual or Extracti Elapsed Rate/V Time (Min) (gpm	ol (°C / °F)	Conductivity (mhos/cm)	pH	1	D.O. Odor mg/L)		Notes			
1200 1900	29.1	1193	7.74							
13.06	79,8	1230	13,51							
1208	29.7	1225	7.67							
		-								
		A REDUING	NIEG DIA							
Time Of and a				4	SAMPLE	RECORD				
Time Started:	12/0		me Comp		7/5	CAXA Q	M			
Sampling Meth					av f.S.		ellnas			
Sample No. 1	ime Con	tainer Type	Volume	No. of Containers	Analysis Method	Preservative	Notes			
CW-8-012407 1		astic	200	1	300.0	None	Raw			
CW-8-012407 1:	/		W0	2	200.7/300					
						-	440 3.3			
		QUAI	ITY CON	TROL SAM	PLE RECO	RD				
	Orig. Sar		Туре		Sample No.	Time				
						1 1110				

	Ground	water Sai	mpling F	form				
Project	Name/N	lumber:	7830	しつ			Well No.:5	5-540451 of 1/25/07
						Record	der/Sampler:	Ka
				WELL	INFORMA			
Total W	ell Dept	h (ft):		00				
Casing I	Diamete	er ("d", in.)	: <u> </u>	ó"	Screened	Interval (ft):	From:	To:
		pth ("a", f	,	B-F-WARDEN): est. 200	
One We	etted Ca	sing Volu	me: (a-b	i) • d2 • 0.04	108 = 195	.84 Gallons	, (3 Casing Vol	umes <u>587.52</u> gal
		PL	IRGE INF	ORMATION	N AND FIE	D MEASUR	REMENTS (ethal pucy time
Time St	arted:	1032	_	Time Compl	letecka . k		Total Purge Tir	19.37 mir
Purge M	1ethod:"	towas	ste 1	Pump Settin	ng (depth):_		Total Purge Vo	lume: 240g
Actual or Elapsed	Extraction Rate/Vo		Conductivi (mhos/cm			D.O. Odor		Notes
Time (Min) W37	(gpm)	26.4	452	71.61	· ·	9'-1	inable to	A0.00
1040	Ju	2617	467	7.12				measure Williams fit in
1945	*	26.8	459	7.82			Port.	V
:								
			A RADI INI	CINEODE	TION AND			
Time Sta	artad.	e Who				SAMPLE F	RECORD	
				Time Compl		DH7		
Sample N			tainer Type	ng Pump or Volume	<u> </u>			
					No. of Containers	Analysis Method	Preservative	Notes
540451.0			<u>Plastic</u>	2500 Me	l	300,0	None	Raw
540451-0	12507 (047 4	lastic	125ml/250m	L 2	200.7/200.0	None/HM3	Filtered
		,		A CONTRACTOR OF THE CONTRACTOR				
			QUA	LITY CONT	FROL SAM	PLE RECO	RD	1
		Orig. Sar	nple No.	Type	QC S	Sample No.	Time	
				· · · · · · · · · · · · · · · · · · ·				-

VAmell

HYDRO GEO CHEM, INC.

H	/DRO	GEO CH	EM, INC.		SAH-1			
Gra	oundwa	ter Samplin	g Form					
Project Na	me/Nur	nber: <u>1831</u>	Ole . 2. Stan	ita GW 1	(r	Well No.: 5 Date: _ der/Sampler: _	55-550533 1/25/07 Ka	
Total Mall	Donth /	ν, 15 _{1νς}	WELI MELI	L INFORMA	ATION			
Total Well Casing Dia		•	114	0		- 112 0	liae	
Well/Packe		-				From: 430		
One Wette	d Casin	a Volume: 7	a-b) • d2 • 0 0	208 - 40	vvater ("b", π	408.25	lumes <u>179.1/8</u> gal)	
		PURGE	INFORMATIO	N AND FIF	ID MEASUE	, (3 Casing Vol Demente	lumes <u>l M.V</u> 8 gal)	
Time Starte	ed: <u>∐</u>	518	Time Comp	A :	コユレハハ	Total Purge Ti	me: 915	
Purge Meth	nod: β	rejedto war				Total Purge Vo	olume MASS a	
Actual or Ex Elapsed R	traction	Temp Cond	uctivity pH s/cm)	Other	D.O. Odor (mg/L)		Notes	
1525 19	idem "	26.5 76 30.1 8856 30.2 846	6 4.30 0850 7.75 1 7.70	Kaila'	5/07			
	0.							
Time Starte	.d.	SAMPL SAMPL	ING INFORM	س ۱		ECORD		
	********		Time Comp pling Pump or		3/ loom x	Showerside	o dedo a	
Sample No.	Time	Container T		No. of	Analysis	Preservative	<u> </u>	
1.550533012	1011/-			Containers	Method	<u> </u>	Notes	
.550533-1912	607 1631	o Plastic Plastic	2500 125 melso	2	300.0 300.6/100.11	10 HADD	Raw	
VIA	001(3)5	PIGISTIC	(PS) regions		00010 [100], (None/HNO;	Hiltera	
			IALITY CON	TDOL CARE	DI E DECCE			
	Or	rig. Sample No	UALITY CONT		PLE RECOR		7	
			7 900	QC 3	rample INO.	Time		
							and-description	
H:\Field Forms\GV	VSampling.	doc					(Parameter)	

HYDRO GEO	CHEM, IN	IC.	Haven Golf					
Groundwater Sam	pling Form					V		
Project Name/Number:	8306.2.	Siemita		Well wing Decorder/Samp		5847 1		
		WELL INFO						
Total Well Depth (ft):	500							
Casing Diameter ("d", in.):	_4_	Scre	ened Interva	l (ft): From:_	To:_			
Well/Packer Depth ("a", ft):			h to Water ("	•				
One Wetted Casing Volum						156.73(gal)		
A	GE INFORM							
Time Started: 1123	Time Started: 1123 Time Completed: 1135 Total Purge Time: 10.19 min Purge Method: Ascharge to point Pump Setting (depth): Total Purge Volume: 9000 ga							
0,-					ırge Volume:	<u>4000 </u>		
Actual or Extraction Temp Elapsed Rate/Vol (°C / °F) Time (Min) (gpm)	Conductivity (mhos/cm)	pH Other	D.O. (mg/L)	Odor	Notes			
1125 ~800gm 22.7		1.53						
1131 23.8	482 7	.31						
1133 \ 229		7.29						
1135 23.0	03683 F	1.28						
SA	MPLING INF	ORMATION	AND SAMP	LE RECORE)			
Time Started: 1/35		Completed:	1136		-			
Sampling Method, Type of	Sampling Pu	mp or Bailer	gralo f	rom port	· on dischar	ar old		
Sample No. Time Contai	ner Type Vo	lume No.		ysis Prese		Notes		
J. 515867.020607 1135 Pl	astic at	Conta	iners Meth		one Rav			
	. 1	250 2	200.7/3		1	tend		
		,	•			and the second s		
	QUALITY	CONTROL	SAMPLE RE	CORD				
Orig. Samp		Туре	QC Sample No		ie			
H:\Field Forms\GWSampling.doc					-			

HYDRO GEO CHEM. INC.
Groundwater Sampling Form
Project Name/Number: 78301.2 Siemita GWM on tonng Date: 2/4/07 Recorder/Sampler: 40
WELL INFORMATION
Total Well Depth (ft): 290
Casing Diameter ("d", in.): Screened Interval (ft): From: To:
Well/Packer Depth ("a", ft): Depth to Water ("b", ft): Re.9ft (on 1/9/67)
One Wetted Casing Volume: (a-b) • d2 • 0.0408 = 360.553 Gallons, (3 Casing Volumes 1081.66 gal)
PURGE INFORMATION AND FIELD MEASUREMENTS
Time Started: Time Completed: 1045 Total Purge Time: 151 min
Purge Method: Total Purge Volume: ~ (004 ga
Actual or Extraction Temp Conductivity pH Other D.O. Odor Notes Elapsed Rate/Vol (°C / °F) (mhos/cm) Time (Min) (gpm)
1418 App. 24.9 381 7.91 Dark color/Stdiments
1429 11 26.0 487 7.66 Same as above 1438 11 26.1 495 7.92 More Clear - Sediments remain
1449 34 76.2 517 7.70 Sane as above
1455 4000 26.1 525 7.69 dark brown 1500 3.5 26.2 526 7.69
1500 3.5 26.2 524 7.69 dark from 1515 3.5 26.5 523 7.70 dark from
1530 265 520 7.78 Stillventurbid Orango brown
1400 ~3.5 24.4 518 7.76 Stillvery Turbid Light range from
Time Started: Time Completed:
Time Started: Time Completed: Sampling Method, Type of Sampling Pump or Bailer:
Sample No. Time Container Type Volume Alteré
Container Type Volume No. of Analysis Preservative Notes Containers Method
on next page - Ka 26/07
QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.

Туре

QC Sample No.

Time

Groui	ıdwater	Sampling .	Form						
Project Name	e/Numbe	er: <u>78306 .</u> 8	2. Sierni	ha GW	Mo	,		Well No.: \mathcal{L}	1 1 1 1
							Record	er/Sampler: _	1980
T-4-116/ # D	() (6)	$\cap a$	WELI 3/a	L INFOR	RMA"	<u>FION</u>			
Total Well De	. ,	<u> </u>	a						
Casing Diam		,					, ,	From:	
Well/Packer [Depth	n to V	Vater	("b", ft)	: 186.9ft (t	m1/19/07)
One Wetted (Casing V	olume: (a-	b) • d2 • 0.0	408 = 30	10.55	<u>í3</u> c	Ballons,	(3 Casing Volu	ımes <u>(0f1.64 </u> gal)
		PURGE IN	FORMATIC						
Time Started	: 14	14	Time Comp	oleted:	世	45	145	Total Purge Tim	ne: <u>151</u> min
Purge Method	d: towa	ste	Pump Setti	ing (dep	th):	K921	Wold -	Total Purge Vol	ume: ~ 604 gal
Actual or Extrac Elapsed Rate Time (Min) (gpt	/Val (°C/			Other	1	0.0. ng/L)	Odor		Notes
1020 3.5	5 He		7.76					Stillventurbid	Aightmarky tankyllon
1035 23.5								Semi-Clear/1	wrky yellow
1640 -3.F									hight yellow
) 00	Joy	<u> </u>					Cemi-Clear/	light yellow
			IG INFORM	ATION	AND	SAN	IPLE R	ECORD	:
Time Started:	16	15	Time Comp	oleted:	l(Ql	the			
Sampling Met	thod, Typ	pe of Sampl	ing Pump o	r Bailer:	g	rab	from	Amp disc	harge
Sample No.		Container Typ		No. o	<u>U</u> of	Ar	U nalysis ethod	Preservative	Notes
N-532595-020707	1645	Plastic	250	١		300	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	None	Raw
W-532595-020707	Letto	Plastic	125/250	2			1/300.0		Filtered
		E. T. C. Called Street, Section 1995		,					
		0.11	ALITY CON	ITDO! O		\	75005		
				ITROL S					7
	Orig.	Sample No.	Туре		QC S:	ample	No.	Time	THE PROPERTY OF THE PROPERTY O
	1							TARRES	1

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pg.20f2

HYDR	O GEO CHE	M, INC.			
Ground Project Name/N	water Sampling Number: Siem	Form HaGWMo	78306.2 nitoning	Well No.: Date: _2 rder/Sampler: <i>M</i>	635386 -15-07
Total Well Dep	ر th (ft):	<u>Well in</u>	FORMATION	rdensampler. <u>///</u>	<i>r</i> /
Casing Diamete Well/Packer De One Wetted Ca	epth ("a", ft):	D	creened Interval (ft epth to Water ("b", = <u></u> 460 Gallor	ft): 311.03	To:
Time Started: Purge Method:	<u>PURGE IN</u>	FORMATION A	ND FIELD MEASL	JREMENTS .	e: <u>[20</u> min
Actual or Elapsed Rate/Volume (Min) (gpm) 1/38 /2 1/43 /2 1/53 /2 1/243 /2 1/303 /2 1/303 /2 1/303 /2	Temp (°C/°F) Conduct (mhos/conduct) (°C/°F) (°C/°F) (mhos/conduct) (°C/°F) (mhos/conduct) (°C/°F) (°C/°F) (mhos/conduct) (°C/°F) (°C/°	7.63 7.63 7.63 7.53 7.89 7.75 7.88 7.89	Other D.O. Odd (mg/L)	Slightly Ro Clear Clear Clear Clear Clear Clear Clear Clear	otes
	1337 od, Type of Samp		\sim		
Sample No. T 635386-021507 13		1	No. of Analysis Method 200.7 300.0		Notes Liltered (Run
	QU Orig. Sample No.	ALITY CONTRO	DL SAMPLE RECO	DRD Time	

HYDRO GEO CHEM, INC. Groundwater Sampling Form Well No: 55-624024 IW-91 Well Owner: FICO Date: Project Name/Number: SIERRITA GW MONITORING (78306.2) Recorder/Sampler: WELL INFORMATION 1175 Total Well Depth (ft): Screened Interval (ft): From: Casing Diameter ("d", in.): 16 Depth to Water ("b", ft): ADWR WL=159 Well/Packer Depth ("a", ft): One Wetted Casing Volume: (a-b) • d2 • 0.0408 = M391 Gallons, (3 Casing Volumes 3/27/13gal) PURGE INFORMATION AND FIELD MEASUREMENTS Total Purge Time: Time Started: Time Completed: Purge Method: To Irria. S Total Purge Volume: (depth): — Actual or Extraction Conductivity рΗ Other D.O. Odor Notes Temp Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L) Time (Min) (gpm) MM 1110 1250 alm SAMPLING INFORMATION AND SAMPLE RECORD 11100 Time Completed: Time Started: Sampling Method, Type of Sampling Pump or Bailer: Ona. Sample No. Time Container Volume # of ^V Analysis Preservative Notes Containers Method Type GW-624024- (DQIO) 250 300.0 NONE RAW **PLASTIC** 1 VL:00 HN03/NONE 125/250 2 200.7/300.0 **FILTERED** GW-624024-022107 11:05 **PLASTIC**

Orig. Sample No.	Type	QC Sample No.	Time



Groundwater Sampling Form

Well No:

55-623994 [S-44]

Well Owner: FICO

Project Name/Number:	SIERRITA	GW MONITORING	(78306.2)	Date:	3121	10 17
<i>,</i>				-	1,	å

Recorder/Sampler: ______

				\A/E-1-1	INICODA	A TION			
				VVELL	INFORM	MATION			
Total We	ell Depth	(ft):	1200	***************************************					
Casing [Casing Diameter ("d", in.): 20 Screened Interval (ft): From: To:								
	cker Dept				Depth	to Water	("b", ft):	ADWR WL=183	211841/2/
One Wetted Casing Volume: (a-b) • d2 • 0.0408 = Gallons, (3 Casing Volumes gallons)									
		PUF	RGE INFOR	RMATION	N AND F	IELD ME	EASURE	<u>MENTS</u>	1
Time Sta	arted: [(32)	Tim	ne Compl	eted: _	0905	To	otal Purge Time:	30 min
Purge M	lethod:	ing-Si	1stone Pur	mp Settir	g (depth	1):	To	otal Purge Volume	elaphan2_g
Actual or Elapsed Time (Min)	Extraction Rate/Vol (gpm)	Temp (°C / °F)	Conductivity (mhos/cm)	pН	Other	D.O. (mg/L)	Odor	Notes	
905	1900	21.6	1301	7.26					
	Control of the Contro								

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started:	_ DAW_	_ Time Completed:	2911	
Sampling Method	d, Type of Sa	mpling Pump or Bailer:	Grah from Sorgi	Thearst well

Sample No.	Time	Container	Volume	# of	Analysis	Preservative	Notes
		Type		Containers	Method		
GW-623994-072107	ain	PLASTIC	250	1	300.0	NONE	RAW
GW-623994-022407	Q:II	PLASTIC	125/250	2	200.7/300.0	HNO3/NONE	FILTERED

Orig. Sample No.	Type	QC Sample No.	Time



HYD

	HYDRO	GEO (CHEM, II	NC.				
	Groundw	ater Sam	pling Form		Well N	o: <u>55-624</u> (025 [S-56] Ka	
						Well O	wner: <u>FICO</u>	W-11 2/2/01
Proje	ct Name/Nu	mber:_SI	ERRITA GW	/ MONITOR	RING (78306	6.2)	Date: 2	2/07
						Recorder/Sa	ampler:	A
				WELL INF	ORMATION	<u>1</u>	" \	/
Total	Well Depth	(ft):	1186					
Casin	g Diameter	("d", in.):	18	S	creened Inte	rval (ft): Fror	n: T	0:
Well/I	Packer Dept	th ("a", ft)	The Control of the Co	De	epth to Wate	er ("b", ft): <u>AD</u>	WR WL=138	1360000
One \	Wetted Casi	ing Volum	ne: (a-b) • d				asing Volume	***
		PUF	RGE INFORI	MATION A	ND FIELD N	MEASUREME	NTS	
Time	Started:	COOL	Time	e Complete	d: <u>1036</u>	Total	Purge Time:	59 min
Purge	e Method:	irrig.8	Pum Pum	p Setting (d	depth):	Tota	Purge Volume	e: <u>BOOD</u> gal
Actual Elapse	d Rate/Vol	Temp (°C / °F)	Conductivity (mhos/cm)	рН О	ther D.O. (mg/L)	Odor	Notes	S
Time (M	40	19.2	1010	7.73				
!								
		9	MPI ING IN	EODMATI	ON AND SA	MPLE RECO	חפר	-
Time	Started:	1025		e Complete	1-01	MAIF LL INLOC	<u> </u>	
		d Type e	f Sampling F	•	0 - 1	from Lo	was story	can trank
				-	J			The state of the s
Sample No. Time		Container Type	Volume	# of Containers	Analysis Method	Preservative	V Notes	
·				0.50	1	300.0	NONE	D 414/
	624025- <u>0}</u>			250	1			RAW
	624025- <u>0}ネル</u> 624025- <u>0}よル</u>			125/250	2	200.7/300.0	HNO3/NONE	FILTERED

Orig. Sample No.	Туре	QC Sample No.	Time

HYDRO GEO CHEM. INC. FICO
Groundwater Sampling Form GW-423991
Well No.: S-40
Project Name/Number: 18004.2 Date: 2 1 07
Recorder/Sampler: Kg
WELL INFORMATION
Total Well Depth (ft):
Casing Diameter ("d", in.): Screened Interval (ft): From: To:
Well/Packer Depth ("a", ft): Depth to Water ("b", ft): Left From Fix of g
One Wetted Casing Volume: (a-b) • d2 • 0.0408 = 22200 Gallons, (3 Casing Volumes Will gal)
PURGE INFORMATION AND FIELD MEASUREMENTS
Time Started: 0130 Time Completed: 015 Total Purge Time: min
Purge Method: Total Purge Volume: 1500 g
Actual or Extraction Temp Conductivity pH Other D.O. Odor Notes Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L) Time (Min) (gpm)
0816 1500 220 1078 7.34
SAMPLING INFORMATION AND SAMPLE RECORD
Time Started: DSD Time Completed: DSDD
Sampling Method, Type of Sampling Pump or Bailer (120) Com Sampling Manual Well,
Sample No. Time Container Type Volume No. of Analysis Preservative Notes
N-(23991-0240) Plastic 250 1 300.0 None Row
N-023991-024010828 Hastic 250 1 300.0 None Raw 1-1023991-02401 0820 Plastic 250125 2 200.7/300.0 HNO3/None F
Control of the contro
OUALITY CONTROL CAMPLE DECOM
QUALITY CONTROL SAMPLE RECORD
Orig. Sample No. Type QC Sample No. Time

	HYDRC) GEO	CHEN	1, 1	VC.				2002M22402K62750S454				
	Groundw	ater San	npling F	orm					V	Vell No	o:	55- 624	027 027 040 040 040 040 040 040 040 040 040 04
									V	Vell Ov	wner:	FICO	四0-2]
Proje	ct Name/Nu	mber:_S	SIERRITA	(GW	MONI	TOR	ING (7	8306	5.2)		Date	: 20	4/07
									Recor	der/Sa	ampler		(g
			arth		WELL	INF	ORMA	TION	<u> </u>				1
Total	Well Depth	(ft):	300	Kg	Haili	17							
Casir	ng Diameter	("d", in.)	: <u>18</u>	lut	Kg2411	^{©∏} Scr	eened	Inte	rval (ft)	: Fron	n:	-	,o:
	Packer Dep			*		De	pth to	Wate	r ("b", f	t): <u>AD</u>	WR W	/L=90	138 H. mm
One '	Wetted Cas	ing Volui	me: (a-l	o) • d2	2 • 0.04	+08 =	SHIE	242.	Gallon	s, (3 C	asing	Volume	s 1440 2 gal)
		<u>PU</u>	RGE IN	ORN	IOITAN	N AN	D FIE	LD M	IEASU	REME	NTS		,
Time	Started:	1145	}.	Time	Comp	leted		m	<u> </u>			e Time:	min
Purge	e Method:	D###75	4ton	Pum	p Settir	ng (de	epth):_	- Aller		Total	Purge	e Volum	e: <u>MU</u>
Actual Elapse	į.	Temp (°C / °F)	Conductive (mhos/cr	- 1	рН	Oth		D.O. mg/L)	Odo			Note	S
Time (N	Min) (gpm)	011	1mol4		0.91					TON	21 0 0	n aur	iva V
11-76		2/11	1001							W >			***************************************
					52-1-18-7-19-7-19-7-19-7-19-7-19-7-19-7-19						······································		
-													
												· · · · · · · · · · · · · · · · · · ·	
								,					
			4 4 4 5 1 1 1	0 111	50D14	A T.O	AL SAIF	204	MOLE	DECC	\DD		
	Otantada	<u>S</u> しんっ	AMPLIN	***************************************				AS C	NIPLE A IN	KEUU 1	אַט		
	Started: pling Metho	<i>ــــــــــــــــــــــــــــــــــــ</i>	 of Sampl		Comp ump or			ab	Rr.	S. Mi	ntr	waret	well head
	Sample No.	Tim	e Conta	iner	Volun		# of		Anal		Pres	ervative	Notes
GW-	62402 X -022	107 11:5	Typ D PLAS		250	,	Contair 1	ners	Met		N	ONE	RAW
	62402 <u>X-()}}</u>			STIC			2			300.0	HNO	3/NONE	FILTERED
#	<u>\</u>												
				A						\n_n			
				ALIT'	Y CON	rro				<u> </u>	 .		
	Orig. Sample No. Type QC Sa				Samp	ie No.		Time					

HYDRO GEO CHEM, INC. Groundwater Sampling Form Well No: Well Owner: FICO Project Name/Number: SIERRITA GW MONITORING (78306.2) Date: Recorder/Sampler: WELL INFORMATION Total Well Depth (ft): Screened Interval (ft): From: Casing Diameter ("d", in.): 2016 Depth to Water ("b", ft): ADWR WL=17. Well/Packer Depth ("a", ft): One Wetted Casing Volume: (a-b) • d2 • 0.0408 = 1000 Gallons, (3 Casing Volumes PURGE INFORMATION AND FIELD MEASUREMENTS Time Started: Time Completed: Total Purge Time: Total Purge Volume: Pump Setting (depth): Purge Method: Actual or Extraction Conductivity На Other Notes Temp Rate/Vol (°C / °F) (mg/L) Elapsed (mhos/cm) Time (Min) (gpm) 1005 7.43 22.1 SAMPLING INFORMATION AND SAMPLE RECORD Time Started: Time Completed: Sampling Method, Type of Sampling Pump or Bailer: Sample No. Time Container Volume # of Analysis Preservative Notes Type Containers Method

Type Containers Method NONE RAW GW-624015-022107 10:06 PLASTIC 250 1 300.0 HNO3/NONE FILTERED

Orig. Sample No.	Туре	QC Sample No.	Time



Groundwater Sampling Form

Well No:

55-623982 [S-19A]

Well Owner: FICO

Project Name/Number:	SIERRITA GW MONITORING (78306.2)	Date:	2010
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WELL INFORMATION						
Total Well Depth (ft): 2280						
Casing Diameter ("d", in.): 20 Screened Interval (ft): From: To:						
Well/Packer Depth ("a", ft): Depth to Water ("b", ft): ADWR WL=209/228 Hours						
One Wetted Casing Volume: (a-b) • d2 • 0.0408 = 34884 Gallons, (3 Casing Volumes Days Pgal)						
PURGE INFORMATION AND FIELD MEASUREMENTS						
Time Started: ODD Time Completed: OBIX Total Purge Time: min						
Purge Method: Dirrig System Pump Setting (depth): Total Purge Volume: 64000 gal						
Actual or Extraction Temp Conductivity pH Other D.O. Odor Notes Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L)						
0848 1950 27.6 349 7.71						
SAMPLING INFORMATION AND SAMPLE RECORD						
Time Started: 0x48 Time Completed: 0x49						
Sampling Method, Type of Sampling Pump or Bailer: Grab from Sayot neart will had						

Sample No.	Time	Container Type	Volume	# of Containers	Analysis Method	Preservative	Notes
GW-623982-022107	(X:H)	PLASTIC	250	1	300.0	NONE	RAW
GW-623982- <u>022101</u>	08:49	PLASTIC	125/250	2	200.7/300.0	HNO3/NONE	FILTERED

Orig. Sample No.	Туре	QC Sample No.	Time



Groundwater Sampling Form

Well No:

55-623996 [S-46]

Well Owner: FICO

Project Name/Number:_	SIERRITA GW MONITORING (78306.2)	Date:	2/21/07
	D		

Project Name/Number: SIERRITA GW MONITORING (78306.2)						
Recorder/Sampler:						
WELL INFORMATION						
Total Well Depth (ft): 1615						
Casing Diameter ("d", in.): 20 Screened Interval (ft): From: To:						
Well/Packer Depth ("a", ft): Depth to Water ("b", ft): ADWR WL=232/255+1						
One Wetted Casing Volume: (a-b) • d2 • 0.0408 = Gallons, (3 Casing Volumes (4-b) • d2 • 0.0408 = Gallons, (3 Casing Volumes)						
PURGE INFORMATION AND FIELD MEASUREMENTS						
Time Started: Time Completed: Total Purge Time: Total Purge Time:						
Purge Method: Purge Volume: WOOD of Total Purge Volume: WOOD of						
Actual or Extraction Temp Conductivity pH Other D.O. Odor Notes Elapsed Rate/Vol (°C / °F) (mhos/cm) (mg/L) Time (Min) (gpm)						
0930 220 27.7 492 8.26						
SAMPLING INFORMATION AND CAMPLE DECORD						
SAMPLING INFORMATION AND SAMPLE RECORD						
Time Started: Time Completed: Office Constitution of the Completed:						
Sampling Method, Type of Sampling Pump or Bailer:						
Sample No. Time Container Volume # of Analysis Preservative Notes Type Containers Method						
GW-623996-12107 0930 PLASTIC 250 1 300.0 NONE RAW						
GW-623996-07207 (グ:力) PLASTIC 125/250 2 200.7/300.0 HNO3/NONE FILTERED						

Orig. Sample No.	Туре	QC Sample No.	Time



Groundwater Sampling Form

Well No:

55-624012 [E-5]

Well Owner: FICO

Project Name/Number: SIERRITA GW MONITORING (78306.2)

Date:

,				Recorder/Sa	mpler:	7
	,	WELL INF	ORMATION	<u> </u>		1
Total Well Depth (ft):	520	Termanduscouplus de la companya de				
Casing Diameter ("d", in.):	16	Sc	reened Inte	rval (ft): Fron	n: T	-o:
Well/Packer Depth ("a", ft):	***************************************	De	epth to Wate	er ("b", ft): <u>ADI</u>	NR WL=NOM	E 1814 HOWN
One Wetted Casing Volum	e: (a-b) • d2	2 • 0.0408	=3/140.79	Gallons, (3 C	asing Volume	s Maragal) A
PUF	RGE INFORM	MATION A	ND FIELD N	<u>IEASUREME</u>	<u>NTS</u>	
Time Started: 1030	Time	Completed	d: <u>1132</u>	Total	Purge Time:	<u>UD</u> min
Purge Method: 12 Mmg S	Ala Pump	Setting (d	depth):	Total	Purge Volume	e: <u>3107) </u>
Actual or Extraction Temp Elapsed Rate/Vol (°C / °F) Time (Min) (gpm)	Conductivity (mhos/cm)	pH Ot	ther D.O. (mg/L)	Odor	Notes	S
1132 500 29.2	MM8 F	7.53				
	MPLING INF	FORMATIO		MPLE RECO	<u>PRD</u>	
Time Started: 1135	Time	Complete	d: 113/4		,	D
Sampling Method, Type of	Sampling Po	ump or Bai	iler: <u>(IVW)</u>	4.5pga	wover u	2 h.
Sample No. Time	Container Type	Volume	# of Containers	Analysis Method	Preservative	Notes
GW-624012-022107 11:35		250	1	300.0	NONE	RAW
GW-624012-022107 11:30	PLASTIC	125/250	2	200.7/300.0	HNO3/NONE	FILTERED

Orig. Sample No.	Туре	QC Sample No.	Time

Groundwater Sampling Form

Well No:

55-608597

			W	ell Owne	er: Robson Ranch/Quail Creek		
Project Name/Number: SIEF	Project Name/Number: SIERRITA GW MONITORING (78306.2) Date: 227/27						
					r/Sampler:		
	WELL	INFORM	MATION		· ·		
Total Well Depth (ft):	502						
Casing Diameter ("d", in.):	16	Screen	ed Inter	val (ft): F	From: To:		
Well/Packer Depth ("a", ft):					ADWR WL=none 280.90 ho		
One Wetted Casing Volume:	(a-b) • d2 • 0.0	408 = <u>{}</u>	<u>19.92</u> 0	Gallons, ((3 Casing Volumes <u>245/1.7/</u> gal) ⁽		
PURG	E INFORMATIO	N AND F	IELD ME	EASURE	MENTS LAW		
Time Started:	Time Comp	oleted:	1330	T	otal Purge Time: (45.35)min		
Purge Method: (1) Syst	In Pump Setti	ng (depth):	T	otal Purge Volume: \(\sum_2500 \) c		
1	onductivity pH mhos/cm)	Other	D.O. (mg/L)	Odor	Notes		
1107 376 25.9 3	56 7.64						
1312 1250 26.0 3	9 1.10						

SAMPLING INFORMATION AND SAMPLE RECORD

Time Started:	1000	lime	Complete	d: <u> 1991</u>		i .	
Sampling Method	d, Type of	Sampling Po	ump or Ba	iler: <u>Grab</u>	from Soi	not Idischan	ged toserstam
	* ·		•			1 9 1	
Sample No.	Time	Container	Volume	# %f	Analysis	Preservative	Notes

Sample No.	Time	Container	Volume	# of	Analysis	* Preservative	Notes
		Type		Containers	Method		
GW-608597- <u>()227()</u> 7	B:30	PLASTIC	250	1	300.0	NONE	RAW
GW-608597- <u>022707</u>	13:34	PLASTIC	125/250	2	200.7/300.0	HNO3/NONE	FILTERED

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Type	QC Sample No.	Time
Dw02270713	R		1330
200022707B	F		133)

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1335 8 1334

Groundwater Sampling Form

Well N	lo:	55-608521

Well Owner: 1	Robson	Ranch/Quail Cree
Project Name/Number: SIERRITA GW MONITORING (78306.2)	Date:	227/07

							Recorder/S	ampler: 🏌	
	WELL INFORMATION								
Total Well	I Depth	(ft):	1800	99000000000000000000000000000000000000					
Casing Di	iameter	("d", in.):	24		Screer	ned Inte	erval (ft): Fro	m:	Го:
Well/Pack	er Dept	h ("a", ft):		THE STREET, SHOWING THE STREET,	Depth	to Waț	er ("b", ft): <u>A</u> L	WR WL=238	
One Wett	ed Casi	ng Volum	e: (a-b) • d	2 • 0.040)8 = <u>20</u>	708.25	Gallons, (3 (Casing Volume	es <u> 0 24.75</u> gal)
n llagen	amivo	<u>PUR</u>	GE INFORI	MATION	AND F	FIELD N	MEASUREMI	<u>ENTS</u>	
Time Star		1135		Comple				l Purge Time:	min
Purge Me	thod:	Sastum	Pum	p Setting	ı (depth	n):	Tota	l Purge Volum	e:ga
Elapsed	Extraction Rate/Vol	Temp (°C / °F)	Conductivity (mhos/cm)	рН	Other	D.O. (mg/L)	Odor	Note	s
Time (Min)	(gpm) KGO	31.9	369	6.20			V	ellrunng	yponamival
<u> </u>	850	31.8	575	8.21				()	

		SA	MPLING IN	FORMA	TION A	ND SA	MPLE REC	ORD	
Time Star	ted:	1140		Comple		(,		TO THE STATE OF TH	
Sampling	Method	, Type of	Sampling P	ump or E	Bailer: _	gras	o from Sp	ngot: discl	1 to System
Samp	le No.	Time	Container Type	Volume	1	# of ntainers	Analysis Method	Preservative	Notes
GW-60852	21- <u>(X270</u> °		PLASTIC	250		1	300.0	NONE	RAW
GW-60852	21- <u>03270</u>	I LH	PLASTIC	125/250)	2	200.7/300.0	HNO3/NONE	FILTERED

QUALITY CONTROL SAMPLE RECORD

Orig. Sample No.	Туре	QC Sample No.	Time
DUD 072707 A	R	1008521	1140
D0022707 A	F	(20852)	1141

PC 022707A ELD RIF H:\78300\DATA\FIELD DATA\RobsonRanch-QuailCreek Wells\GWSampling_RR-55-608521.doc

1200/1201