



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

May 08, 2019

Gerardo Gonzales
Las Campanas Water System
PO Box 6384
Santa Fe, NM 87502
TEL: (505) 690-2258
FAX

RE: Las Campanas

OrderNo.: 1904E20

Dear Gerardo Gonzales:

Hall Environmental Analysis Laboratory received 1 sample(s) on 4/30/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order **1904E20**
 Date Reported: **5/8/2019**

CLIENT: Las Campanas Water System

Client Sample ID: Special Hardness

Project: Las Campanas

Collection Date: 4/30/2019 10:03:00 AM

Lab ID: 1904E20-001

Matrix: AQUEOUS

Received Date: 4/30/2019 2:32:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: bcv
Hardness (As CaCO ₃)	110	6.6		mg/L	1	5/7/2019 12:32:00 PM	R59669
EPA METHOD 200.7: METALS							Analyst: bcv
Calcium	35	1.0		mg/L	1	5/6/2019 1:16:55 PM	A59669
Magnesium	5.1	1.0		mg/L	1	5/6/2019 1:16:55 PM	A59669

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1904E20

08-May-19

Client: Las Campanas Water System

Project: Las Campanas

Sample ID: MB-A	SampType: MBLK	TestCode: EPA Method 200.7: Metals								
Client ID: PBW	Batch ID: A59669	RunNo: 59669								
Prep Date:	Analysis Date: 5/6/2019	SeqNo: 2011817	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								

Sample ID: LLCS-A	SampType: LCSLL	TestCode: EPA Method 200.7: Metals								
Client ID: BatchQC	Batch ID: A59669	RunNo: 59669								
Prep Date:	Analysis Date: 5/6/2019	SeqNo: 2011818	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	101	50	150			
Magnesium	ND	1.0	0.5000	0	101	50	150			

Sample ID: LCS-A	SampType: LCS	TestCode: EPA Method 200.7: Metals								
Client ID: LCSW	Batch ID: A59669	RunNo: 59669								
Prep Date:	Analysis Date: 5/6/2019	SeqNo: 2011819	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.8	85	115			
Magnesium	50	1.0	50.00	0	99.9	85	115			

Sample ID: 1904E20-001AMS	SampType: MS	TestCode: EPA Method 200.7: Metals								
Client ID: Special Hardness	Batch ID: A59669	RunNo: 59669								
Prep Date:	Analysis Date: 5/6/2019	SeqNo: 2011826	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	83	1.0	50.00	34.67	96.9	70	130			
Magnesium	55	1.0	50.00	5.055	99.2	70	130			

Sample ID: 1904E20-001AMSD	SampType: MSD	TestCode: EPA Method 200.7: Metals								
Client ID: Special Hardness	Batch ID: A59669	RunNo: 59669								
Prep Date:	Analysis Date: 5/6/2019	SeqNo: 2011830	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	84	1.0	50.00	34.67	98.3	70	130	0.815	20	
Magnesium	55	1.0	50.00	5.055	100	70	130	0.775	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Sample Log-In Check List

Client Name: LAS CAMPANAS WATE

Work Order Number: 1904E20

RcptNo: 1

Received By: **Isaiah Ortiz** 4/30/2019 2:32:00 PM

I-OK

Completed By: **Isaiah Ortiz** 4/30/2019 2:41:57 PM

I-OK

Reviewed By: *TMM 4-30-19*
LB: YG 4/30/19

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present

2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes No NA

4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA

5. Sample(s) in proper container(s)? Yes No

6. Sufficient sample volume for indicated test(s)? Yes No

7. Are samples (except VOA and ONG) properly preserved? Yes No

8. Was preservative added to bottles? Yes No NA

9. VOA vials have zero headspace? Yes No No VOA Vials

10. Were any sample containers received broken? Yes No

11. Does paperwork match bottle labels? Yes No

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes No

13. Is it clear what analyses were requested? Yes No

14. Were all holding times able to be met? Yes No

(If no, notify customer for authorization.)

of preserved bottles checked for pH: 1
 (<2 or >12 unless noted)
 Adjusted? NO
 Checked by: YG 4/30/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	8.2	Good	Not Present			

Chain-of-Custody Record



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Turn-Around Time: _____
 Standard Rush
 Project Name: Las Campanas
 Project #: _____

Project Manager: Gerardo Gonzalez
 Sampler: G. Gonzalez
 On Ice: Yes No
 # of Coolers: 1 (including CF)
 Cooler Temp: 0.2°C

Container Type and #: 1 Plastic 250ml
 Preservative Type: HNO₃
 HEAL No.: 1904EZO
-001

QA/QC Package: _____
 Standard Level 4 (Full Validation)
 Accreditation: AZ Compliance
 NELAC Other _____
 EDD (Type) _____

Date	Time	Matrix	Sample Name
4-30-19	1003	AG	Special Hardness

Date: 4-30-19 Time: 1430
 Relinquished by: _____
 Date: _____ Time: _____

Analysis Request

BTEX / MTBE / TMS (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCBs	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Hardness
										X

Received by: JCO Via: 000 Date: 4/30/19 Time: 1432
 Received by: _____ Via: _____ Date: _____ Time: _____

Remarks: Special Sample

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.