

ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

November 7, 2023

Richie Lawrence
North Kern Water Storage District
P O BOX 81435
Bakersfield, CA 93380

TEL: (661) 393-3361
FAX: (661) 393-6884

Project ID: Irrigation Analysis
RE: 2310669

Dear Richie Lawrence:

Zalco Laboratories, Inc. received 5 samples on 10/31/2023 for the analyses presented in the following report.

We appreciate your business and look forward to serving you in the future. Please feel free to call our office if you have any questions regarding these test results.

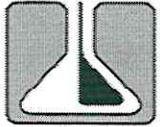
Sincerely,


Juan Magana
Project Manager
CC:

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.



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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2310669-01
Date Received: 10/31/23
Analysis Date: 10/31/23
Date Reported: 11/07/23

Attention: Richie Lawrence

Sample Identification: Kimberlina
Sampled by: Client

Date: 10/31/2023 Time: 8:00:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.82

Specific Conductance 111
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.111
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	8.8	0.4
Magnesium, Mg	1.6	0.13
Sodium, Na	7.7	0.33
Potassium, K	1.9	0.049
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	44	0.71
Chloride, Cl	2.5	0.07
Sulfate, SO4	6.0	0.12
Nitrate, NO3	0.62	0.0099
Totals (Sum)	73	1.9
Boron, B	0.12	
Total Dissolved Solids, (Gravimetric)	22	
Calculated Hardness, CaCO3	29	
Sodium Adsorption Ratio, SAR	0.60	
Exchangeable Sodium Percentage, ESP	-0.40	
Cation/Anion Balance, %	6.0%	
Langelier Scale Index	-0.81	



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North Kern Water Storage District P O BOX 81435 Bakersfield, CA 93380	Project: Irrigation Analysis Project #: Irrigation Analysis Attention: Richie Lawrence	Work Order No.: 2310669 Reported: 11/07/2023 Received: 10/31/23 10:38
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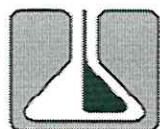
Lab Sample ID: 2310669-01	Collected By: Eduardo Lucero
Client Sample ID: Kimberlina	Date Collected: 10/31/2023 8:00:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	9.6	2.5	mg/L		SM 2540 D	11/1/23	11/1/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2310669-02
Date Received: 10/31/23
Analysis Date: 10/31/23
Date Reported: 11/07/23

Attention: Richie Lawrence

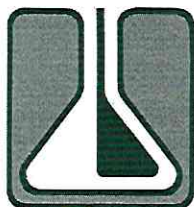
Sample Identification: Stiff House
Sampled by: Client

Date: 10/31/2023 Time: 8:25:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.99		
Specific Conductance	74.9	Specific Conductance (SC):.....	0.075
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	5.3	0.3
Magnesium, Mg	1.0	0.078
Sodium, Na	< 7.0	0.00
Potassium, K	1.2	0.031
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	25	0.41
Chloride, Cl	< 2.0	0.056
Sulfate, SO4	3.4	0.071
Nitrate, NO3	< 0.50	0
Totals (Sum)	46	0.9
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	18	
Calculated Hardness, CaCO3	17	
Sodium Adsorption Ratio, SAR	0.00	
Exchangeable Sodium Percentage, ESP	-1.30	
Cation/Anion Balance, %	31.0%	
Langelier Scale Index	-1.09	



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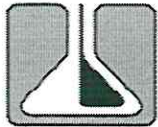
Lab Sample ID: 2310669-02	Collected By: Eduardo Lucero
Client Sample ID: Stiff House	Date Collected: 10/31/2023 8:25:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	14	2.5	mg/L		SM 2540 D	11/1/23	11/1/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2310669-03
Date Received: 10/31/23
Analysis Date: 10/31/23
Date Reported: 11/07/23

Attention: Richie Lawrence

Sample Identification: 7th Standard
Sampled by: Client Date: 10/31/2023 Time: 8:50:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.77
Specific Conductance 111 Specific Conductance (SC):..... 0.111
(micromhos/cm @ 25 C) (millimhos/cm @ 25 C)

Constituents	mg/L	meq/L
Calcium, Ca	8.7	0.4
Magnesium, Mg	1.5	0.12
Sodium, Na	7.0	0.30
Potassium, K	1.8	0.046
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	40	0.65
Chloride, Cl	2.2	0.062
Sulfate, SO4	5.6	0.12
Nitrate, NO3	0.67	0.011
Totals (Sum)	67	1.7
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	5.0	
Calculated Hardness, CaCO3	28	
Sodium Adsorption Ratio, SAR	0.60	
Exchangeable Sodium Percentage, ESP	-0.40	
Cation/Anion Balance, %	5.0%	
Langelier Scale Index	-0.87	



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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2310669-04
Date Received: 10/31/23
Analysis Date: 10/31/23
Date Reported: 11/07/23

Attention: Richie Lawrence

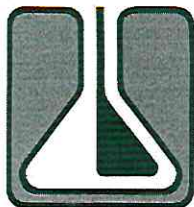
Sample Identification: CT 1 @ Zackary
Sampled by: Client Date: 10/31/2023 Time: 9:25:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.58
Specific Conductance 106
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.106
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	7.9	0.4
Magnesium, Mg	1.4	0.12
Sodium, Na	< 7.0	0.00
Potassium, K	1.6	0.041
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	39	0.64
Chloride, Cl	2.2	0.062
Sulfate, SO4	5.4	0.11
Nitrate, NO3	0.50	0.0081
Totals (Sum)	65	1.4
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	10	
Calculated Hardness, CaCO3	25	
Sodium Adsorption Ratio, SAR	0.00	
Exchangeable Sodium Percentage, ESP	-1.30	
Cation/Anion Balance, %	29.0%	
Langelier Scale Index	-1.12	



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North Kern Water Storage District P O BOX 81435 Bakersfield, CA 93380	Project: Irrigation Analysis Project #: Irrigation Analysis Attention: Richie Lawrence	Work Order No.: 2310669 Reported: 11/07/2023 Received: 10/31/23 10:38
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Lab Sample ID: 2310669-04 Client Sample ID: CT 1 @ Zachary	Collected By: Eduardo Lucero Date Collected: 10/31/2023 9:25:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	3.6	2.5	mg/L		SM 2540 D	11/1/23	11/1/23	SIG

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTL: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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North Kern Water Storage District
33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2310669-05
Date Received: 10/31/23
Analysis Date: 10/31/23
Date Reported: 11/07/23

Attention: Richie Lawrence

Sample Identification: Head of Beardsley
Sampled by: Client Date: 10/31/2023 Time: 10:05:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.70
Specific Conductance 110 Specific Conductance (SC):..... 0.110
(micromhos/cm @ 25 C) (millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	10.0	0.5
Magnesium, Mg	1.8	0.15
Sodium, Na	7.3	0.32
Potassium, K	1.8	0.046
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	41	0.67
Chloride, Cl	2.4	0.068
Sulfate, SO4	5.6	0.12
Nitrate, NO3	0.86	0.014
Totals (Sum)	71	1.9
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	20	
Calculated Hardness, CaCO3	32	
Sodium Adsorption Ratio, SAR	0.60	
Exchangeable Sodium Percentage, ESP	-0.40	
Cation/Anion Balance, %	1.0%	
Langelier Scale Index	-0.90	



LABORATORY REPORT
ELAP STATE CERT. #3028

CUSTOMER: Zalco Laboratories
ADDRESS: 4309 Armour Ave
Bakersfield, CA 93308

LOG NUMBER: 40913
DATE RECEIVED: 11-01-23
DATE COMPLETED: 11-06-23
REPORT DATE: 11-06-23

ATTENTION: Juan Magana

ANALYTICAL PARAMETER: Arsenic (As)

SAMPLE MATRIX: Drinking Water

Log Number	Sample Description	Constituent	-Results- (mg/L)	(ug/L)	PQL/DLR (mg/L)	(ug/L)	Method Number	MCL (mg/L)	(ug/L)	
40913-1	2310669-01	Arsenic	As	0.003	3.47	0.001	1.00	EPA 200.8	0.010	10.0
40913-2	2310669-02	Arsenic	As	0.002	2.23	0.001	1.00	EPA 200.8	0.010	10.0
40913-3	2310669-03	Arsenic	As	0.003	3.40	0.001	1.00	EPA 200.8	0.010	10.0
40913-4	2310669-04	Arsenic	As	0.003	2.92	0.001	1.00	EPA 200.8	0.010	10.0
40913-5	2310669-05	Arsenic	As	0.003	3.18	0.001	1.00	EPA 200.8	0.010	10.0

NOTES:

- 1) PQL = Practical Quantitation Limit is the lowest level that can be reliably achieved within specific limits of precision and accuracy. It also depends upon the size and digestion/analytical techniques employed.
- 2) DLR = Detection Limit for the purpose of reporting for Regulated Inorganic Chemical.
- 3) MCL = Maximum Contaminant Level
- 4) N.D. = Not Detected
- 5) * Turbidity value is > 1 NTU's. Sample was ran undigested per Client's request. Results are non-regulatory.

REFERENCES:

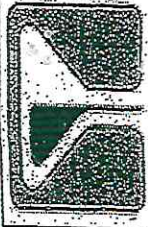
- 1) ALPHA-AWWA-WPCF, "Standard Methods for the Examination of Water and Wastewater," 18th Edition.
- 2) EPA, "Methods for Chemical Analysis of Water and Wastes," 1983 United States Environmental Protection Agency, EPA 600/4-79-020, Revised March 1983.

Jonathan Harris - President
Midway Laboratory, Inc

Date: 11/6/23

QC: TS Date: 11.6.23
QC: KC Date: 11/10/23

Midway Laboratory, Inc.
Petroleum-Industrial-Environmental
315 Main Street P.O. Box 1151
Tall California 93268



ZALCO LABORATORIES, INC.
 4309 Armour Avenue, Bakersfield, CA 93308 (661) 395-0539 FAX (661) 395-3069 www.zalcolabs.com
 2186 Eastman Avenue, Suite 103, Ventura, CA 93003, (805) 477-0114, Fax (805) 477-0125

CHAIN OF CUSTODY, I/L#

ANALYSIS REQUESTED

2310669

Client PO: _____
 Project ID: _____
 Quote ID: _____

COMPANY: North Kern Water Sewer District
 CONTACT: Richie Lawrence
 PHONE: 661-978-9182 FAX: _____
 ADDRESS: 33380 Lawelo Ave Bakersfield Ca 93308
 E-MAIL: Lawrence@northkernwsd.com
 SAMPLER (SIGNATURE): *[Signature]*

LAB #	SAMPLE DESCRIPTION	DATE	TIME	Irrigation	TSS	Arsenic	Number of Containers	Type of Containers	Sample Matrix	Notes
1	Kimberline	10/31/23	800	X	X	X	2	P	NP	
2	STIFF House	10/31/23	825	X	X	X	2	P	NP	
3	7th Standard	10/31/23	850	X	X	X	2	P	NP	
4	ATI Zachary	10/31/23	925	X	X	X	2	P	NP	
5	Head of Beardsley	10/31/23	1005	X	X	X	2	P	NP	10/31/23

Relinquished By: *[Signature]* Company: Edwards Lucero Date: 10/31/23 Time: 1038 Received By: *[Signature]* AMCA 10/31/23 1038 Company: ZALCO

NOTE: Samples Discarded 30-days after results unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Sample Type Key: Aq-Aqueous; BS-Biosolid; DW-Drinking Water; GW-Groundwater; G-Gas; LPG-Liquid Petroleum Gas; OL-Oil; P-Petroleum; S-Solid/Soil; ST-Storm water; WW-Wastewater

COMMENTS
 Turnaround Time: Rush (10 working days) Routine (5 working days)
 Rush By: 5 Working Days
 EDT:
 State Form:
 EMAIL: *[Signature]*
 Notes: U.C.