

ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

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

June 9, 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: 2306007

Dear Richie Lawrence:

Zalco Laboratories, Inc. received 5 samples on 6/1/2023 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,

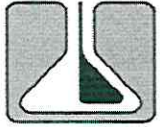
A handwritten signature in dark ink, appearing to read "Juan Magana", is written over a light blue horizontal line.

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: 2306007-01A
Date Received: 06/01/23
Analysis Date: 06/01/23
Date Reported: 06/09/23

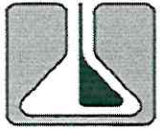
Attention: Richie Lawrence

Sample Identification: Kimberlina
Sampled by: Client Date: 6/1/2023 Time: 8:14:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.64
Specific Conductance 71.8
(micromhos/cm @ 25 C) Specific Conductance (SC):..... 0.07
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	4.6	0.23
Magnesium, Mg	0.79	0.065
Sodium, Na	< 7	0.00
Potassium, K	0.79	0.02
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0	0
Bicarbonate, HCO3	28	0.45
Chloride, Cl	< 2	0.056
Sulfate, SO4	3.7	0.077
Nitrate, NO3	1.4	0.022
Totals (Sum)	25	0.9
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	46	
Calculated Hardness, CaCO3	15	
Sodium Adsorption Ratio, SAR	0.1	
Exchangeable Sodium Percentage, ESP	-1.10	
Cation/Anion Balance, %	42.0%	
Langelier Scale Index	-1.48	



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

Laboratory No: 2306007-02A
Date Received: 06/01/23
Analysis Date: 06/01/23
Date Reported: 06/09/23

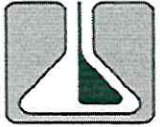
Attention: Richie Lawrence

Sample Identification: Stiff House
Sampled by: Client Date: 6/1/2023 Time: 8:33:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.73
Specific Conductance 81 Specific Conductance (SC):..... 0.08
(micromhos/cm @ 25 C) (millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	6.3	0.31
Magnesium, Mg	1.10	0.09
Sodium, Na	< 7	0.00
Potassium, K	1.20	0.031
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	29	0.47
Chloride, Cl	< 2	0.056
Sulfate, SO4	4.1	0.085
Nitrate, NO3	1.4	0.023
Totals (Sum)	28	1.1
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	47	
Calculated Hardness, CaCO3	20	
Sodium Adsorption Ratio, SAR	0.0	
Exchangeable Sodium Percentage, ESP	-1.30	
Cation/Anion Balance, %	30.0%	
Langelier Scale Index	-1.24	



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

Laboratory No: 2306007-03A
Date Received: 06/01/23
Analysis Date: 06/01/23
Date Reported: 06/09/23

Attention: Richie Lawrence

Sample Identification: 7th Standard
Sampled by: Client

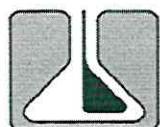
Date: 6/1/2023

Time: 8:57:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.73		
Specific Conductance	76.7	Specific Conductance (SC):.....	0.08
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	5.5	0.27
Magnesium, Mg	0.95	0.078
Sodium, Na	< 7	0.00
Potassium, K	1.00	0.026
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	29	0.47
Chloride, Cl	< 2	0.056
Sulfate, SO4	3.8	0.079
Nitrate, NO3	1.4	0.023
Totals (Sum)	27	1.0
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	47	
Calculated Hardness, CaCO3	18	
Sodium Adsorption Ratio, SAR	0.0	
Exchangeable Sodium Percentage, ESP	-1.30	
Cation/Anion Balance, %	35.0%	
Langelier Scale Index	-1.30	



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

Laboratory No: 2306007-04A
Date Received: 06/01/23
Analysis Date: 06/01/23
Date Reported: 06/09/23

Attention: Richie Lawrence

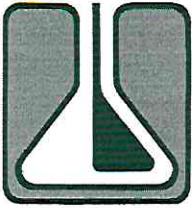
Sample Identification: CT 1 @ Zachary
Sampled by: Client Date: 6/1/2023 Time: 9:26:00 AM

IRRIGATION WATER ANALYSIS

pH..... 7.66
Specific Conductance 74.6
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.07
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	5.7	0.28
Magnesium, Mg	0.97	0.08
Sodium, Na	< 7	0.00
Potassium, K	1.10	0.028
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	28	0.46
Chloride, Cl	< 2	0.056
Sulfate, SO4	3.7	0.077
Nitrate, NO3	1.3	0.022
Totals (Sum)	26	1.0
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	43	
Calculated Hardness, CaCO3	18	
Sodium Adsorption Ratio, SAR	0.0	
Exchangeable Sodium Percentage, ESP	-1.30	
Cation/Anion Balance, %	33.0%	
Langelier Scale Index	-1.37	



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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.: 2306007 Reported: 06/09/2023 Received: 06/01/23 10:55
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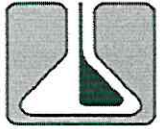
Lab Sample ID: 2306007-04	Collected By: Jay Gonzalez
Client Sample ID: CT1 @ Zachary	Date Collected: 6/1/2023 9:26:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	9.2	2.5	mg/L		SM 2540 D	6/5/23	6/5/23	SLM

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

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

Laboratory No: 2306007-05A
Date Received: 06/01/23
Analysis Date: 06/01/23
Date Reported: 06/09/23

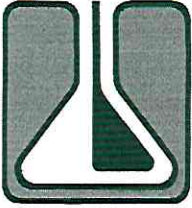
Attention: Richie Lawrence

Sample Identification: Head of Beardsley
Sampled by: Client Date: 6/1/2023 Time: 10:07:00 AM

IRRIGATION WATER ANALYSIS

pH.....	7.71	Specific Conductance (SC):.....	0.07
Specific Conductance	71.2	(micromhos/cm @ 25 C)	(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	5.2	0.26
Magnesium, Mg	0.89	0.073
Sodium, Na	< 7	0.00
Potassium, K	0.91	0.023
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	26	0.43
Chloride, Cl	3.7	0.1
Sulfate, SO4	3.5	0.073
Nitrate, NO3	1.4	0.022
Totals (Sum)	29	1.0
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	43	
Calculated Hardness, CaCO3	17	
Sodium Adsorption Ratio, SAR	0.0	
Exchangeable Sodium Percentage, ESP	-1.30	
Cation/Anion Balance, %	39.0%	
Langelier Scale Index	-1.38	



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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.: 2306007 Reported: 06/09/2023 Received: 06/01/23 10:55
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Lab Sample ID: 2306007-05	Collected By: Jay Gonzalez
Client Sample ID: Head of Beardsley	Date Collected: 6/1/2023 10:07:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	32	2.5	mg/L		SM 2540 D	6/5/23	6/5/23	SLM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TLC: 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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LABORATORY REPORT
ELAP STATE CERT. #3028

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

LOG NUMBER: 40211
DATE RECEIVED: 06-02-23
DATE COMPLETED: 06-05-23
REPORT DATE: 06-05-23

ATTENTION: Juan Magana

ANALYTICAL PARAMETER: Arsenic (As)

SAMPLE MATRIX: Water

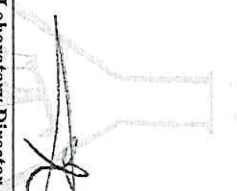
Log Number	Sample Description	Constituent	-Results- (mg/L)	(ug/L)	PQL/DLR (mg/L)	(ug/L)	Method Number	MCL (mg/L)	(ug/L)	
40211-1	2306007-01	Arsenic	As	0.003	2.77	0.001	1.00	EPA 200.8	0.010	10.0
40211-2	2306007-02	Arsenic	As	0.003	2.86	0.001	1.00	EPA 200.8	0.010	10.0
40211-3	2306007-03	Arsenic	As	0.003	2.88	0.001	1.00	EPA 200.8	0.010	10.0
40211-4	2306007-04	Arsenic	As	0.003	3.02	0.001	1.00	EPA 200.8	0.010	10.0
40211-5	2306007-05	Arsenic	As	0.003	2.50	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.

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.



Kurt Buckle - Laboratory Director

Midway Laboratory, Inc

Date: 6-5-23

Q.C. KI Date: 6/5/23
Q.C. SBW Date: 6/5/23

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
 2186 Eastman Avenue, Suite 103, Ventura, CA 93003, (805) 477-0114, Fax (805) 477-0125

CHAIN OF CUSTODY, IUF#

2300007

Client PO:
 Project ID:
 Quote ID:

ANALYSIS REQUESTED

COMMENTS

COMPANY: North Kern water Storage District
 CONTACT: Richie Lawrence
 PHONE: 661-978-9182
 ADDRESS: 33380 Cavelo Av. Bakersfield CA 93308
 E-MAIL: Lawrence@northkern.wsd.com

SAMPLER (SIGNATURE): [Signature]
 LAB #

LAB #	SAMPLE DESCRIPTION	DATE	TIME	Irrigation	TSS	Arsenic	Number of Containers	Type of Containers	Sample Matrix	Notes
1	Kimberlina	6-1-23	8:14	X	X	X	2	P	NP	2580
2	STIFF House	6-1-23	8:33	X	X	X	2	P	NP	split to 2
3	7th Standard	6-1-23	8:57	X	X	X	2	P	NP	6/1/23 28
4	CT 1 @ Zachary	6-1-23	9:26	X	X	X	2	P	NP	
5	Head of Beardsley	6-1-23	10:07	X	X	X	2	P	NP	

Relinquished by: [Signature]
 Company: [Blank]
 Date: [Blank]
 Time: [Blank]
 Received By: [Signature]
 Date: 6/10/23
 Time: 10:55
 Company: [Blank]

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
 LP-Liquid Petroleum Gas; OL-Oil; P-Petroleum; S-Solid/Soil; ST-Storm water
 WW-Wastewater