

ZALCO LABORATORIES, INC.

Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

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

November 10, 2022

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: 2211038

Dear Richie Lawrence:

Zalco Laboratories, Inc. received 5 samples on 11/2/2022 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 printed name and title.

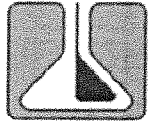
Juan Magana
Project Manager

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

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

Laboratory No: 2211038-01A
 Date Received: 11/2/2022
 Analysis Date: 11/4/2022
 Date Reported: 11/10/2022

Attention: Richie Lawrence

Sample ID: Kimberlina

Sampled by: Client Date: 11/2/2022 Time: 9:30:00 AM

COMPLETE GEOCHEM ANALYSIS

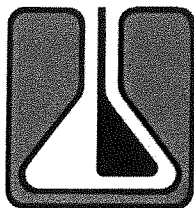
pH.....	8.07	Specific Gravity @ 60 F...	1.001
Specific Conductance (SC)..... (millimhos/cm @ 25 C)	1.0	Resistivity..... (ohm meters @ 25 C)	10.02

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>	<u>Reacting %</u>
Calcium, Ca	66	3.3	21.1
Magnesium, Mg	1.4	0.12	0.7
Sodium, Na	100	4.3	27.88
Potassium, K	1.2	0.031	0.2
Iron, Fe (total)	< 0	0	0.0
Alkalinity as:			
Hydroxide, OH	0	0.0	0.0
Carbonate, CO3	0	0	0.0
Bicarbonate, HCO3	45	0.74	4.74
Chloride, Cl	120	3.4	21.69
Sulfate, SO4	190	4	25.37
Sulfide, S	< 1		
Boron, B	< 0.10		
Barium, Ba	< 0.10		
Silica, SiO2	< 4		
Strontium, Sr	< 0.10		
Totals (Sum)	554	15.9	100

Total Dissolved Solids, (Gravimetric)	680
Calculated Hardness, CaCO3	170
Total Alkalinity, CaCO3	45
Sodium Chloride, (total)	340

Cation/Anion Balance, % 5.0%

Langelier Scale Index	0.25
Stiff/Davis Stability Index	0.16



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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.: 2211038 Reported: 11/10/2022 Received: 11/02/22 11:37
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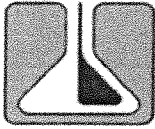
Lab Sample ID: 2211038-01 Client Sample ID: Kimberlina	Collected By: Jay Gonzalez Date Collected: 11/2/2022 9:30:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	<2.5	2.5	mg/L		SM 2540 D	11/8/22	11/8/22	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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33380 Cawelo Ave.
Bakersfield, CA 93308

Laboratory No: 2211038-02A
Date Received: 11/02/22
Analysis Date: 11/04/22
Date Reported: 11/10/22

Attention: Richie Lawrence

Sample Identification: Stiff House
Sampled by: Client

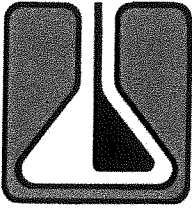
Date: 11/2/2022 Time: 9:51:00 AM

IRRIGATION WATER ANALYSIS

pH..... 8.57
Specific Conductance 773
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.77
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	49	2.40
Magnesium, Mg	2.4	0.2
Sodium, Na	72	3.10
Potassium, K	1.1	0.028
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	5.5	0.18
Bicarbonate, HCO3	55	0.9
Chloride, Cl	80	2.3
Sulfate, SO4	140	2.9
Nitrate, NO3	20	0.32
Totals (Sum)	400	12.3
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	490	
Calculated Hardness, CaCO3	130	
Sodium Adsorption Ratio, SAR	2.7	
Exchangeable Sodium Percentage, ESP	2.7	
Cation/Anion Balance, %	7.0%	
Langelier Scale Index	0.76	



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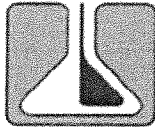
North Kern Water Storage District P O BOX 81435 Bakersfield, CA 93380	Project: Irrigation Analysis Project #: Irrigation Analysis Attention: Richie Lawrence	Work Order No.: 2211038 Reported: 11/10/2022 Received: 11/02/22 11:37
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Lab Sample ID: 2211038-02 Client Sample ID: Stiff House	Collected By: Jay Gonzalez Date Collected: 11/2/2022 9:51:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
<i>MCL Limits</i>								
Total Suspended Solids	7.3	2.5	mg/L		SM 2540 D	11/8/22	11/8/22	SLM

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: 2211038-03A
Date Received: 11/02/22
Analysis Date: 11/04/22
Date Reported: 11/10/22

Attention: Richie Lawrence

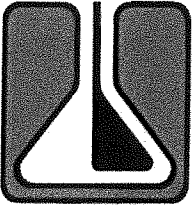
Sample Identification: 7th Standard
Sampled by: Client

Date: 11/2/2022 Time: 10:17:00 AM

IRRIGATION WATER ANALYSIS

pH.....	8.52		
Specific Conductance	401	Specific Conductance (SC):.....	0.40
(micromhos/cm @ 25 C)		(millimhos/cm @ 25 C)	

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	23	1.10
Magnesium, Mg	2.8	0.23
Sodium, Na	34	1.50
Potassium, K	0.83	0.021
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	3.7	0.12
Bicarbonate, HCO3	63	1.04
Chloride, Cl	34	0.96
Sulfate, SO4	10	0.21
Nitrate, NO3	< 1	0
Totals (Sum)	140	5.2
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	190	
Calculated Hardness, CaCO3	69	
Sodium Adsorption Ratio, SAR	1.8	
Exchangeable Sodium Percentage, ESP	1.4	
Cation/Anion Balance, %	7.0%	
Langelier Scale Index	0.45	



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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.: 2211038 Reported: 11/10/2022 Received: 11/02/22 11:37
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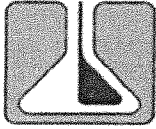
Lab Sample ID: 2211038-03	Collected By: Jay Gonzalez
Client Sample ID: 7th Standard	Date Collected: 11/2/2022 10:17:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	3.5	2.5	mg/L		SM 2540 D	11/8/22	11/8/22	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: 2211038-04A
Date Received: 11/02/22
Analysis Date: 11/04/22
Date Reported: 11/10/22

Attention: Richie Lawrence

Sample Identification: CT 1@Zachary
Sampled by: Client

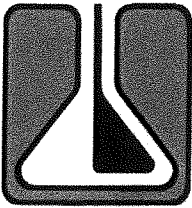
Date: 11/2/2022 Time: 10:35:00 AM

IRRIGATION WATER ANALYSIS

pH..... 8.83
Specific Conductance 793
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.79
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	32	1.60
Magnesium, Mg	< 0.1	0
Sodium, Na	110	4.80
Potassium, K	0.5	0.013
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	7.2	0.24
Bicarbonate, HCO3	41	0.66
Chloride, Cl	93	2.6
Sulfate, SO4	160	3.3
Nitrate, NO3	2.7	0.043
Totals (Sum)	430	13.3
Boron, B	< 0.10	
Total Dissolved Solids, (Gravimetric)	500	
Calculated Hardness, CaCO3	80	
Sodium Adsorption Ratio, SAR	5.3	
Exchangeable Sodium Percentage, ESP	6.2	
Cation/Anion Balance, %	5.0%	
Langelier Scale Index	0.73	



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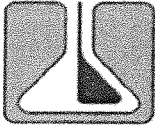
North Kern Water Storage District P O BOX 81435 Bakersfield, CA 93380	Project: Irrigation Analysis Project #: Irrigation Analysis Attention: Richie Lawrence	Work Order No.: 2211038 Reported: 11/10/2022 Received: 11/02/22 11:37
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Lab Sample ID: 2211038-04 Client Sample ID: CT 1 @ Zachary	Collected By: Jay Gonzalez Date Collected: 11/2/2022 10:35:00AM
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Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	3.3	2.5	mg/L		SM 2540 D	11/8/22	11/8/22	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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Bakersfield, CA 93308

Laboratory No: 2211038-05A
Date Received: 11/02/22
Analysis Date: 11/04/22
Date Reported: 11/10/22

Attention: Richie Lawrence

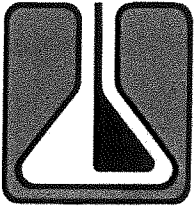
Sample Identification: Head of Beardsley
Sampled by: Client Date: 11/2/2022 Time: 11:11:00 AM

IRRIGATION WATER ANALYSIS

pH..... 8.06
Specific Conductance 293
(micromhos/cm @ 25 C)

Specific Conductance (SC):..... 0.29
(millimhos/cm @ 25 C)

<u>Constituents</u>	<u>mg/L</u>	<u>meq/L</u>
Calcium, Ca	19	0.95
Magnesium, Mg	3.5	0.29
Sodium, Na	19	0.83
Potassium, K	1.3	0.033
Alkalinity as:		
Hydroxide, OH	0.0	0
Carbonate, CO3	0.0	0
Bicarbonate, HCO3	81	1.32
Chloride, Cl	9.6	0.27
Sulfate, SO4	35	0.73
Nitrate, NO3	0.6	0.0093
Totals (Sum)	130	4.4
Boron, B	0.13	
Total Dissolved Solids, (Gravimetric)	130	
Calculated Hardness, CaCO3	62	
Sodium Adsorption Ratio, SAR	1.1	
Exchangeable Sodium Percentage, ESP	0.4	
Cation/Anion Balance, %	9.0%	
Langelier Scale Index	-0.01	



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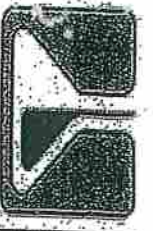
North Kern Water Storage District P O BOX 81435 Bakersfield, CA 93380	Project: Irrigation Analysis Project #: Irrigation Analysis Attention: Richie Lawrence	Work Order No.: 2211038 Reported: 11/10/2022 Received: 11/02/22 11:37
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Lab Sample ID: 2211038-05	Collected By: Jay Gonzalez
Client Sample ID: Head of Beardsley	Date Collected: 11/2/2022 11:11:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
General Chemistry								
			<i>MCL Limits</i>					
Total Suspended Solids	4.2	2.5	mg/L		SM 2540 D	11/8/22	11/8/22	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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 2186-Eastman Avenue, Suite 103, Ventura, CA 93003, (805) 477-0114, FAX (805) 477-0125

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ANALYSIS REQUESTED

CHAIN OF CUSTODY, ID# 2211038

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

COMPANY: North Kern water Storage District
 CONTACT: Richard Lawrence
 PHONE: 661-978-9182 FAX: _____
 ADDRESS: 33300 Camelo Av Bakersfield
CA 93308
 EMAIL: Lawrence@northkern.wsd.com
 SAMPLER (SIGNATURE): [Signature]

LAB #	SAMPLE DESCRIPTION	DATE	TIME	Irrigation	TSS	Arsenic	Number of Containers	Type of Containers	Sample Matrix	Notes
1	Kimberlina	11-2-03	9:30	X	X	X	2	P	NP	16.0C
2	Stiff House	11-2-03	9:51	X	X	X	2	P	NP	SPLIT
3	7th Standard	11-2-03	10:17	X	X	X	2	P	NP	
4	CT 1 @ Standard <u>Zalco</u>	11-2-03	10:35	X	X	X	2	P	NP	
5	Head of Beardsley	11-2-03	11:11	X	X	X	2	P	NP	11/2/03

Relinquished By: [Signature] Company: _____ Date: _____ Time: _____ Received By: AMM 11/2/03 11:37 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
 L-P-Liquid Petroleum Gas; OL-Oil; P-Petroleum; S-Solid/Soil; ST-Storm water
 WW-Wastewater

COMMENTS

Turnaround Time: _____
 Routine (10 working days)
 Rush By 5 Working Days
 EDT
 State Form
 EMAIL

PUSH!