

⁸⁻¹⁷
Big Bear
Creek

245

8/23/83

Bear Creek

Bear Creek sampling station is at Bear Creek Bridge located at TIN/River/Sec 15.
In addition two other stations on Santa Ana River were sampled one at the confluence point w/ Bear Creek and one at Camp Wagner.

Sampling points are as follows:

1. Santa Ana River road crossing below Camp Wagner, east of Seven Oaks
TIN/River/Sec. 15
2. Bear Creek bridge appx. $\frac{1}{4}$ mile north of Santa Ana River sampling site.
TIN/River/Sec. 15 A
3. Santa Ana River sampling station approx. 100 feet N of Bear Creek confluence w/
TIN/River/Sec. 15 B

La Santa Ana River road crossing below Camp Wawona
east of Seven Oaks.

Date: 8/23/88 Time: 10:30 water Temp: 51.8°

Air Temp: 75°F weather: clear/water cloudy, app: clear

Flow: ~ 75 ft³/sec

F-Coli: 31 T-coli: 250

Bear Cr. Bridge - approx $\frac{1}{4}$ mile north of
Santa Ana River confluence pt.

Date: 8/23/82 Time: 13:00 Water Temp: 62.6 F

Air Temp: 75 F, weather: clear, water app: clear
Flow: = 42 ft³/sec.

E. coli: 11 T. col: 1-40

3 - Santa Ana River ~~Sampling Station~~

Approx. 100' east. of Bean Cr. Confluence pt.

Date: 8/23/83, Time: 13:00 water Temp: 55.6°F

Air Temp: 75°F weather: clear, water app: clear

Flow: ~ 15 ft³/sec.

E. coli: 33 T. col.: 540

WESTERN ANALYTICAL LABORATORIES, INC.

13744 MONTE VISTA AVENUE

CHINO, CALIFORNIA 91710

(714) 627-3628

WA NO 3080911

SEP 12 1983

DATE RECEIVED 8-23-83

DATE OF REPORT 9-8-83

CUSTOMER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD Santa Ana Region

ATTENTION James W. Anderson

Riverside, CA 92506

SAMPLE IDENTIFICATION Surface Water - Sample #1

SAMPLING POINT Santa Ana River Crossing below Camp Wasqagen

SAMPLED BY Jeff Earls

DATES & HOURS SAMPLED 8-23-83; 10:30 am

PARAMETER	VALUE	PARAMETER	VALUE
Aluminum.....	mg/l	Nickel.....	mg
Ammonia-N (N).....	0.03 mg/l	Nitrate-N (N).....	0.03 mg
Antimony.....	mg/l	Oil & Grease.....	mg
Arsenic.....	mg/l	pH.....	8.20
BOD.....	mg/l	Phenols.....	mg
Barium.....	mg/l	Phosphate - Ortho.....	<0.05 mg
Beryllium.....	mg/l	Phosphate, Total.....	mg
Bismuth.....	mg/l	Potassium.....	1.63 mg
Boron.....	mg/l	Selenium.....	mg
COD.....	mg/l	Settleable Solids.....	mg
Cesium.....	mg/l	Silver.....	mg
Calcium.....	19.6 mg/l	Sodium.....	6.40 mg
Chloride.....	3.9 mg/l	Specific Conductance.....	156 micromhos/cm
Chlorinated Hydrocarbons- C ₁ - C ₆	mg/l	Sulfate.....	10.8 mg
Chromium (Hexavalent).....	mg/l	Sulfide.....	mg
Chromium (Total).....	mg/l	Surfactants (MBAS).....	mg
Cobalt.....	mg/l	Suspended Solids.....	mg
Copper.....	mg/l	Temperature.....	mg
Cyanide.....	mg/l	Tin.....	mg
Dissolved Oxygen.....	mg/l	Titanium.....	mg
Flow (total).....	gals/day	Total Alkalinity.....	70.0 mg
Flow (peak).....	gals/min	Bicarbonate Alkalinity.....	70.0 mg
Fluoride.....	mg/l	Carbonate Alkalinity.....	0 mg
Iron.....	0.02 mg/l	Total Dissolved Solids -	113 mg
Lead.....	mg/l	(Filterable Residue).....	68.0 mg
Magnesium.....	4.60 mg/l	Total Hardness.....	Un
Manganese.....	mg/l	Turbidity.....	mg
Mercury.....	mg/l	Zinc.....	16. <0.5 mg/mg
Hydroxide Alkalinity	0 mg/l	Silica	mg
		Carbon Dioxide	mg/mg

SAWPA DES



001004456

Jeff J. Zimmer

Laboratory Director

WESTERN ANALYTICAL LABORATORIES, INC.

13744 MONTE VISTA AVENUE

CHINO, CALIFORNIA 91710

(714) 627-3628

STATE APPROVED WATER LABORATORY

WAL NO.

3080912

DATE RECEIVED

SEP | 8-23-83

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9-8-83

CUSTOMER CALIFORNIA REGIONAL WATER QUALITY ADDRESS 6809 Indiana Ave
CONTROL BOARD Santa Ana Region

ATTENTION James W. Anderson

Riverside, CA 92506

SAMPLE IDENTIFICATION Surface Water - Sample #2

SAMPLING POINT Bear Creek Bridge above Santa Ana Confluence

SAMPLED BY Jeff Earls

DATES & HOURS SAMPLED 8-23-83; 1:00 pm

PARAMETER	VALUE	PARAMETER	VALUE
Aluminum.....	mg/l	Nickel.....	mg
Ammonia (N).....	0.03 mg/l	Nitrate (N).....	0.14 mg
Antimony.....	mg/l	Oil & Grease	mg
Arsenic.....	mg/l	pH	7.80
BOD.....	mg/l	Phenols.....	mg
Barium.....	mg/l	Phosphate - Ortho.....	< 0.05 mg
Beryllium.....	mg/l	Phosphate, Total.....	mg
Bismuth.....	mg/l	Potassium	1.04 mg
Boron.....	< 0.01 mg/l	Selenium.....	mg
Cadmium.....	mg/l	Settleable Solids.....	m
Calcium.....	22.0 mg/l	Silver.....	mg
Chloride.....	3.9 mg/l	Sodium	9.82 mg
Chlorinated Hydrocarbons- C ₁ - C ₆	mg/l	Specific Conductance.....	182 micromhos/cm
Chromium (Hexavalent).....	mg/l	Sulfate.....	8.4 mg
Chromium (Total).....	mg/l	Sulfide	mg
Cobalt.....	mg/l	Surfactants (MBAS).....	mg
Copper.....	mg/l	Suspended Solids	mg
Cyanide.....	mg/l	Temperature	mg
Dissolved Oxygen.....	mg/l	Tin	mg
Flow (total).....	gals/day	Titanium	80.0 mg
Flow (peak)	gals/min	Total Alkalinity	80.0 mg
Fluoride.....	mg/l	Bicarbonate Alkalinity.....	0 mg
Iron.....	< 0.02 mg/l	Carbonate Alkalinity	mg
Lead.....	mg/l	Total Dissolved Solids -	127 mg
Magnesium.....	2.66 mg/l	(Filterable Residue).....	66.0 mg
Manganese.....	mg/l	Total Hardness.....	Un
Mercury.....	mg/l	Turbidity	mg
Hydroxide Alkalinity	0 mg/l	Zinc.....	20 mg/l
		Silica	2.6 mg/l
		Carbon Dioxide	

SAWPA DES



001004457

Regal J. Zimmer

Laboratory Director

WESTERN ANALYTICAL LABORATORIES, INC.

13744 MONTE VISTA AVENUE

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(714) 627-3628

STATE APPROVED WATER LABORATORY

WA NO 3080913

SEP 12 8-23-83

DATE RECEIVED

9-8-83

DATE OF REPORT

CUSTOMER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD ADDRESS Santa Ana Region
ATTENTION James W. Anderson Riverside, CA 92506

SAMPLE IDENTIFICATION Surface Water - Sample #3

SAMPLING POINT Santa Ana River 100 ft above Bear Creek Confluence

SAMPLED BY Jeff Earis

DATES & HOURS SAMPLED 8-23-83; 1:00 pm

PARAMETER	VALUE	PARAMETER	VALUE
Aluminum.....	mg/l	Nickel.....	mg/l
Amonia (N).....	0.03 mg/l	Nitrate (N).....	0.02 mg/l
Antimony.....	mg/l	Oil & Grease.....	mg/l
Arsenic.....	mg/l	pH.....	8.26
BOD.....	mg/l	Phenols.....	mg/l
Barium.....	mg/l	Phosphate - Ortho.....	< 0.05 mg/l
Beryllium.....	mg/l	Phosphate, Total.....	mg/l
Bismuth.....	mg/l	Potassium.....	1.83 mg/l
Boron.....	0.01 mg/l	Selenium.....	mg/l
C.....	mg/l	Settleable Solids.....	mg/l
Cadmium.....	mg/l	Silver.....	mg/l
Calcium.....	20.0 mg/l	Sodium.....	8.22 mg/l
Chloride.....	4.2 mg/l	Specific Conductance.....	185 micromhos/cm
Chlorinated Hydrocarbons- C ₁ - C ₆	mg/l	Sulfate.....	10.0 mg/l
Chromium (Hexavalent).....	mg/l	Sulfide.....	mg/l
Chromium (Total).....	mg/l	Surfactants (MBAS).....	mg/l
Cobalt.....	mg/l	Suspended Solids.....	mg/l
Copper.....	mg/l	Temperature.....	mg/l
Cyanide.....	mg/l	Tin.....	mg/l
Dissolved Oxygen.....	mg/l	Titanium.....	79.0 mg/l
Flow (total).....	gals/day	Total Alkalinity.....	79.0 mg/l
Flow (peak).....	gals/min	Bicarbonate Alkalinity.....	0 mg/l
Fluoride.....	mg/l	Carbonate Alkalinity.....	mg/l
Iron.....	< 0.02 mg/l	Total Dissolved Solids -	128 mg/l
Lead.....	mg/l	(Filterable Residue).....	68.8 mg/l
Magnesium.....	4.55 mg/l	Total Hardness.....	mg/l
Manganese.....	mg/l	Turbidity.....	mg/l
Mercury.....	mg/l	Zinc.....	mg/l
Hydroxide Alkalinity	0 mg/l	Silica	18 mg/l
		Carbon Dioxide	< 0.5 mg/l

SAWPA DES



001004458

Joseph F. Zimmerman

Laboratory Director

WESTERN ANALYTICAL LABORATORIES, INC SEP 6 1983

13744 MONTE VISTA AVENUE

CHINO, CALIFORNIA 91710

(714) 627-3628

CUSTOMER CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD Santa Ana RegionWAL NO. 3080908-910DATE RECEIVED 8-23-83ATTENTION James W. AndersonDATE OF REPORT 8-31-83SAMPLE IDENTIFICATION: Water Samples for Total and Fecal ColiformCollected by Jeff EarlsTANK NO. _____ GALLONS _____ SAMPLED 8-23-83

ANALYSIS		STANDARD	RESULTS		
WAL #	SAMPLE	LOCATION	TIME	COLIFORM Fecal	(MPN/100) Total
3080908	1	Santa Ana River crossing below camp Waswagen	10:30	31	350
3080909	2	Bear Creek Bridge above Santa Ana Confluence	1:00	11	240
3080910	3	Santa Ana River 100 ft. above Bear Creek Confluence	1:00	33	540

SAWPA DES

001004459

RESULTS PHONED

 YES NO

TO WHOM _____

Jeff P. Zinner

Laboratory Director

DATE _____

1. SANTA ANA RIVER ROAD CROSSING
BELOW CAMP WASWAGEN, EAST OF SEVEN OAKS,
SAMPLED BY: JEFF EARLS, DATE: 8/23/83,
TIME: 10:30 AM, WEATHER: CLEAR/WARM,
AIR TEMP: $\circ 75^{\circ}$, WATER TEMP: 11°C ,
WATER APPEARANCE: CLEAR, APPROX FLOW: $75 \text{ ft}^3/\text{sec}$.

2. BEAR CREEK BRIDGE APPROX $\frac{1}{4}$ MI. NORTH
OF SANTA ANA RIVER CONFLUENCE 8/23/83
SAMPLED BY: JEFF EARLS, DATE: ~~1:00 PM~~,
TIME: 1:00 pm, WEATHER: CLEAR, AIR TEMP:
 $\circ 75^{\circ}$, WATER TEMP: 17°C , WATER APPEARANCE:
CLEAR, APPROX FLOW: $45 \text{ ft}^3/\text{sec}$

3. SANTA ANA RIVER GAGING STATION,
APPROX 100' EAST OF BEAR CREEK CONFLUENCE
SAMPLED BY: JEFF EARLS, DATE: 8/23/83
TIME: 1:00 pm, WEATHER: CLEAR,
AIR TEMP: $\circ 75^{\circ}$, WATER TEMP: 12°C ,
WATER APPEARANCE: CLEAR, APPROX FLOW:
 $45 \text{ ft}^3/\text{sec}$

1. SANTA ANA RIVER ROAD CROSSING BELOW
CAMP WASWAGEN, EAST OF SEVEN OAKS,
TIN, RIE, SECT. 8K
2. BEAR CREEK BRIDGE APPROX. $\frac{1}{4}$ MILE NORTH
OF SANTA ANA RIVER CONFLUENCE, TIN, RIW,
SECT. 19A
3. SANTA ANA RIVER GAGING STATION,
APPROX 100' EAST OF BEAR CREEK CONFLUENCE,
TIN, RIW, SECT. 19H

WESTERN ANALYTICAL LABORATORIES, INC.

13744 MONTE VISTA AVENUE

CHINO, CALIFORNIA 91710

(714) 627-3628

WA NO. 3080911

SEP 1 1983

DATE RECEIVED 8-23-83

DATE OF REPORT 9-8-83

STATE APPROVED WATER LABORATORY

JSTOMER CALIFORNIA REGIONAL WATER QUALITY ADDRESS 6809 Indiana Ave
CONTROL BOARD Santa Ana Region
TENTION James W. Anderson

Riverside, CA 92506

AMPLE IDENTIFICATION Surface Water - Sample #1

AMPLING POINT Santa Ana River Crossing below Camp Wasqagen

AMPLED BY Jeff Earls

ATES & HOURS SAMPLED 8-23-83; 10:30 am

PARAMETER	VALUE	PARAMETER	VALUE
uminum.....		Nickel.....	
nmonia (N).....	0.03 mg/l	Nitrate (N).....	0.03 mg/l
timony.....	mg/l	Oil & Grease.....	mg/l
enic.....	mg/l	pH	8.20
OD.....	mg/l	Phenols.....	mg/l
rium.....	mg/l	Phosphate - Ortho.....	<0.05 mg/l
eryllium.....	mg/l	Phosphate, Total.....	mg/l
smuth.....	mg/l	Potassium	1.63 mg/l
ron.....	0.01 mg/l	Selenium.....	mg/l
OD.....	mg/l	Settleable Solids.....	1 mg/l
idium.....	mg/l	Silver.....	mg/l
lcalcium.....	19.6 mg/l	Sodium	6.40 mg/l
loride.....	3.9 mg/l	Specific Conductance.....	156 micromhos/cm
lorinated Hydrocarbons- C ₁ - C ₆	mg/l	Sulfate.....	10.8 mg/l
romium (Hexavalent).....	mg/l	Sulfide.....	mg/l
romium (Total).....	mg/l	Surfactants (MBAS).....	mg/l
balt.....	mg/l	Suspended Solids	mg/l
upper.....	mg/l	Temperature.....	°F
anide.....	mg/l	Tin	mg/l
solved Oxygen.....	mg/l	Titanium	mg/l
ow (total).....	gals/day	Total Alkalinity	70.0 mg/l
ow (peak).....	gals/min	Bicarbonate Alkalinity.....	70.0 mg/l
oride.....	mg/l	Carbonate Alkalinity	0 mg/l
n.....	50.02 mg/l	Total Dissolved Solids -	113 mg/l
ad.....	4.60 mg/l	(Filterable Residue).....	68.0 mg/l
ignesium.....	mg/l	Total Hardness.....	Units
nganese.....	mg/l	Turbidity	mg/l
rcury.....	mg/l	Zinc.....	
Hydroxide Alkalinity	0 mg/l	Silica	16. mg/l
		Carbon Dioxide	<0.5 mg/l

R. L. J. Jansen

Laboratory Director

WESTERN ANALYTICAL LABORATORIES, INC.

13744 MONTE VISTA AVENUE

CHINO, CALIFORNIA 91710

(714) 627-3628

STATE APPROVED WATER LABORATORY

WAL NO.

3080912

DATE RECEIVED

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DATE OF REPORT

9-8-83

JSTOMER CALIFORNIA REGIONAL WATER QUALITY ADDRESS 6809 Indiana Ave
CONTROL BOARD Santa Ana Region

ATTENTION James W. Anderson Riverside, CA 92506

AMPLE IDENTIFICATION Surface Water - Sample #2

AMPLING POINT Bear Creek Bridge above Santa Ana Confluence

AMPLED BY Jeff Earls

ATES & HOURS SAMPLED 8-23-83; 1:00 pm

PARAMETER	VALUE	PARAMETER	VALUE
uminum.....		Nickel.....	
nmonia (N).....	0.03 mg/l	Nitrate (N).....	0.14 mg/l
timony.....	mg/l	Oil & Grease.....	mg/l
enic.....	mg/l	pH	7.80
O D.....	mg/l	Phenols.....	mg/l
rium.....	mg/l	Phosphate - Ortho.....	< 0.05 mg/l
eryllium.....	mg/l	Phosphate, Total.....	mg/l
smuth.....	mg/l	Potassium	1.04 mg/l
ron.....	< 0.01 mg/l	Selenium.....	mg/l
O D.....	mg/l	Settleable Solids.....	1 mg/l
idium.....	mg/l	Silver.....	mg/l
alcium.....	22.0 mg/l	Sodium	9.82 mg/l
loride.....	3.9 mg/l	Specific Conductance.....	182 micromhos/cm
lorinated Hydrocarbons- C ₁ - C ₆	mg/l	Sulfate.....	8.4 mg/l
romium (Hexavalent).....	mg/l	Sulfide.....	mg/l
romium (Total).....	mg/l	Surfactants (MBAS).....	mg/l
balt.....	mg/l	Suspended Solids.....	mg/l
pper.....	mg/l	Temperature.....	°F
anide.....	mg/l	Tin	mg/l
solved Oxygen.....	mg/l	Titanium	mg/l
ow (total).....	gals/day	Total Alkalinity	80.0 mg/l
ow (peak).....	gals/min	Bicarbonate Alkalinity.....	80.0 mg/l
oride.....	mg/l	Carbonate Alkalinity	0 mg/l
in.....	< 0.02 mg/l	Total Dissolved Solids -	127 mg/l
ad.....	mg/l	(Filterable Residue).....	66.0 mg/l
agnesium.....	2.66 mg/l	Total Hardness.....	Units
anganese.....	mg/l	Turbidity	mg/l
rcury.....	mg/l	Zinc.....	
Hydroxide Alkalinity	0 mg/l	Silica	20 mg/l
		Carbon Dioxide	2.6 mg/l

R. J. Giannetti

Laboratory Director

WESTERN ANALYTICAL LABORATORIES, INC.

13744 MONTE VISTA AVENUE

CHINO, CALIFORNIA 91710

(714) 627-3628

STATE APPROVED WATER LABORATORY

WA NO 3080913

SEP 8-23-83
DATE RECEIVED

DATE OF REPORT 9-8-83

STOMER CALIFORNIA REGIONAL WATER QUALITY ADDRESS 6809 Indiana Ave
CONTROL BOARD Santa Ana Region
TENTION James W. Anderson
Riverside, CA 92506

AMPLE IDENTIFICATION Surface Water - Sample #3

AMPLING POINT Santa Ana River 100 ft above Bear Creek Confluence

AMPLED BY Jeff Earls

ATES & HOURS SAMPLED 8-23-83; 1:00 pm

PARAMETER	VALUE	PARAMETER	VALUE
uminum.....		Nickel.....	
monia (N).....	0.03 mg/l	Nitrate (N).....	0.02 mg/l
timony.....		Oil & Grease.....	
enic.....		pH	8.26
OD		Phenols.....	
rium.....		Phosphate - Ortho.....	< 0.05 mg/l
eryllium.....		Phosphate, Total.....	1.83 mg/l
smuth.....		Potassium	
ron.....	< 0.01 mg/l	Selenium.....	
OD		Settleable Solids.....	
idium		Silver.....	
lcium.....	20.0 mg/l	Sodium	8.22 mg/l
loride.....	4.2 mg/l	Specific Conductance.....	185 micromhos/cm
lorinated Hydrocarbons- C ₁ - C ₆		Sulfate.....	10.0 mg/l
romium (Hexavalent).....		Sulfide.....	
romium (Total).....		Surfactants (MBAS).....	
balt.....		Suspended Solids	
pper.....		Temperature	
vanide.....		Tin	
solved Oxygen.....		Titanium	
ow (total).....		Total Alkalinity	79.0 mg/l
ow (peak).....		Bicarbonate Alkalinity.....	79.0 mg/l
oride.....		Carbonate Alkalinity	0 mg/l
n.....	< 0.02 mg/l	Total Dissolved Solids - (Filterable Residue).....	128 mg/l
ad.....		Total Hardness.....	68.8 mg/l
agnesium.....	4.55 mg/l	Turbidity	Units
anganese.....		Zinc.....	
ercury.....			
Hydroxide Alkalinity	0 mg/l	Silica	18 mg/l
		Carbon Dioxide	< 0.5 mg/l

Jeff Earls

Laboratory Director

