ASSOCIATED LABORATORIES
806 North Batavia - Orange, California 92868 - 714/771-6900 *FAX 714/538-1209*

CLIENT Stetson Engineers Inc. (12413)
ATTN: Joel Barnard
2171 E. Francisco Blvd.
Suite K
San Rafael, CA 94901

LAB REQUEST 241536
REPORTED 10/01/2009
RECEIVED 09/23/2009

PROJECT #2258 SMR Nutrient Study

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.	Client Sample Identification
1024520	SMR U/S of MWD Crossing
1024521	SMR d/s of Rainbow
1024522	Devils Creek
1024523	Stone Creek
1024524	SMR d/s of Stone
1024525	Rainbow Creek
1024526	RCWD Outfall
1024527	Sandia Creek
1024528	SMR d/s De Luz
1024529	SMR d/s Sandia
1024530	Laboratory Method Blank

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.
Vice President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 30 days from date reported.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Order #: 1024527
Matrix: WATER
Date Sampled: 09/23/2009
Time Sampled: 11:00
Sampled By:

Client: Stetson Engineers Inc.
Client Sample ID: Sandia Creek

Analyte	Result	DF	DLR	Units	Date/Analyst	
2130B Turbidity						
Turbidity	0.62	1	0.1	NTU	09/24/09	AE
2510B Specific Conductance						
Specific Conductance	1710	1	1.0	umhos/cm	09/24/09	LN
2540 C Total Dissolved Solids						
Total Dissolved Solids	1150	1	10.0	mg/L	09/24/09	LN
300-351 Total Nitrogen						
Nitrate/Nitrite-N	2.35	1	0.44	mg/L	09/24/09	WW
TKN	0.60	1	0.5	mg/L	09/26/09	TP
Total Nitrogen	2.95	1	0.5	mg/L	09/30/09	TP
300.0 Nitrate as NO3 by Ion Chromatography						
Nitrate (as NO3)	10.4	1	0.44	mg/L	09/24/09	WW
Sulfate	309	5	5.0	mg/L	09/24/09	WW
Nitrite (as NO2)	ND	1	0.33	mg/L	09/24/09	WW
4500-H+B pH						
pH	7.90	1		NA	09/23/09	MS
4500-P-B.5-E Total Phosphorus						
Total Phosphorus as P	0.028	1	0.02	mg/L	09/28/09	DK
4500-P-E Ortho-Phosphate						
Ortho Phosphate as PO4	0.09	1	0.06	mg/L	09/24/09	DK

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Factor

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample: LR 241536

Matrix: WATER

Prep. Date: September 24, 2009

Analysis Date: September 24, 2009

Lab ID#'s in Batch: LR 241536

REPORTING UNITS = mg/L

SAMPLE DUPLICATE RESULT

Test	Method	Sample Result	Sample Duplicate	%RPD
TDS	160-1 / 2540C	631	630	0.16

ND = "U" - Not Detected
RPD = Relative Percent Difference of Sample Result and Sample Duplicate

RPD LIMITS = 5%

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLANK	LCS				
Value	Result	True Value	% Rec	L. Limit	H. Limit
ND	290	293	99	90%	110%

Value = Preparation Blank Value; ND = Not-Detected
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample : 241564-1024615

Matrix: WATER

Prep. Date: 09/24/09

Analysis Date: 09/25/09

Lab ID#'s in Batch: 241536, 241354, 241564, 241536, 241514

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Unints = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
CL	300.0	71	200	294.15	297.46	111	113	1
SO4	300.0	93	200	322.08	321.22	115	114	0
NO3	300.0	18.1	100	115.74	115.68	98	98	0
NO2	300.0	ND	100	101.64	97.12	102	97	5
Br	300.0	ND	100	101.34	102.65	101	103	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%Rec Limits = 80 - 120

RPD Limits = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK Value	LCS Result	True	%Rec	L.Limit	H.Limit
CL	300.0	ND	38.63	40	97	90%	110%
SO4	300.0	ND	37.78	40	94	90%	110%
NO3	300.0	ND	18.27	20	91	90%	110%
NO2	300.0	ND	10.61	10	106	90%	110%
Br	300.0	ND	19.09	20	95	90%	110%

VALUE = Preparation Blank Value; ND = Not-Detected

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L.LIMIT / H.LIMIT = LCS Control Limits

** = Ouside QC Limit*

ASSOCIATED LABORATORIES

QA REPORT FORM

QC Sample : 241481-1024279

Matrix: WATER

Prep. Date: 09/23/09

Analysis Date: 09/24/09

Lab ID#'s in Batch: 241481, 241514, 241513, 241536

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Unints = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
CL	300.0	103	200	281.73	287.96	89	93	2
SO4	300.0	153	200	332.42	324.59	90	86	2
NO3	300.0	17.4	100	100.74	100.10	83	83	1
NO2	300.0	ND	100	99.24	100.42	99	100	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%Rec Limits = 80 - 120
RPD Limits = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
CL	300.0	ND	38.05	40	95	90%	110%
SO4	300.0	ND	40.84	40	102	90%	110%
NO3	300.0	ND	18.33	20	92	90%	110%
NO2	300.0	ND	10.08	10	101	90%	110%

VALUE = Preparation Blank Value; ND = Not-Detected
LCS = Lab Control Sample Result
TRUE = True Value of LCS
L.LIMIT / H.LIMIT = LCS Control Limits
** = Ouside QC Limit*

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 241536-1024520

Matrix: WATER

Prep. Date: 09/26/09

Analysis Date: 09/27/09

Lab ID#'s in Batch: 241536, 241613, 241602, 241514, 241515

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
NH3-N	350.1	0.13	5.00	4.78	4.78	93	93	0

ND = Not Detected
RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 80 - 120
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	4.77	5.00	95	80%	120%

Value = Preparation Blank Value
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM

QC Sample: 241536-1024520

Matrix: WATER

Prep. Date: 09/26/09

Analysis Date: 09/28/09

Lab ID#'s in Batch: 241536

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
TKN	351.2	0.57	12.5	13.7	13.4	105	103	2

ND = Not Detected
RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 80 - 120
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
TKN	351.2	ND	2.64	2.50	106	80%	120%

Test	Method	DIG CHK				
		Result	True	%Rec	L.Limit	H.Limit
TKN	351.2	3.26	3.17	103	85%	115%

Value = Preparation Blank Value
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM - INORGANICS

QC Sample: LR 241514

Matrix: WATER

Prep. Date: September 24, 2009

Analysis Date: September 24, 2009

Lab ID#'s in Batch: LR 241514, 241515, 241516, 241536

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Ortho-Phosphate (as PO4)	4500-P-E	ND	1.53	1.56	1.54	102	101	1
Ortho-Phosphate (as P)	4500-P-E	0.00	0.50	0.51	0.50	102	101	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75 - 125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Ortho-Phosphate (as PO4)	4500-P-E	ND	1.02	1.00	102	80%	120%
Ortho-Phosphate (as P)	4500-P-E	ND	0.33	0.33	102	80%	120%

Value = Preparation Blank Value; ND = Not-Detected
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

ASSOCIATED LABORATORIES
QA REPORT FORM - INORGANICS

QC Sample: LR 241539

Matrix: WATER

Prep. Date: September 28, 2009

Analysis Date: September 28, 2009

Lab ID#'s in Batch: LR 241536, 241666, 241664

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

Reporting Units = mg/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
Total Phosphate (as P)	4500-P-E	ND	0.40	0.40	0.40	100	101	1
Total Phosphate (as PO4)	4500-P-E	0.00	1.23	1.22	1.23	100	101	1

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate
%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 75-125
RPD LIMITS = 20

PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Total Phosphate (as P)	4500-P-E	ND	0.33	0.33	100	80%	120%
Total Phosphate (as PO4)	4500-P-E	ND	1.00	1.00	100	80%	120%

Value = Preparation Blank Value; ND = Not-Detected
LCS Result = Lab Control Sample Result
True = True Value of LCS
L.Limit / H.Limit = LCS Control Limits

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

Company: Stetson Engineers | Phone: 4154570701
Project Manager: Joel Barnard | Fax:
Project Name: SMR Nutrient Study | Project #: 2258
Site Name and Address: Camp Pendleton

A.L. Job No. 241536 | Page 1 of 2

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	Turb, EC, TDS	Nitrate, Nitrite, ortho phosphate	pH, Sulfate	Ammonia, TN, TP, TKN	Test Instructions & Comments
1	SMR u/s of MWDC	crossing	9/22/09	10:23am	FW	1/		X	X	X	X	
2	SMR u/s of MWDC	crossing	9/22/09	10:23am	FW	1/	H2SO4				X X	
3	SMR d/s of Rainbow		9/22/09	2:04pm	FW	1/		X		X		
4	SMR d/s of Rainbow		9/23/09	2:04pm	FW	1/	H2SO4				X X	
5	Devils Creek		9/22/09	9:25	FW	1/		X		X		
6	Devils Creek		9/22/09	9:25	FW	1/	H2SO4				X X	
7	Stone Creek		9/22/09	12:40	FW	1/		X		X		
8	Stone Creek		9/22/09	12:40	FW	1/	H2SO4				X X	
9	SMR d/s of Stone		9/22/09	~1:40	FW	1/		X		X		
10	SMR d/s of Stone		9/22/09	~1:40	FW	1/	H2SO4				X X	
11	Rainbow Creek		9/22/09	4:10	FW	1/		X		X		
12	Rainbow Creek		9/22/09	4:10	FW	1/	H2SO4				X X	
13	RCWD outfall		9/22/09	4:50	FW	1/		X		X		
14	RCWD outfall		9/22/09	4:50	FW	1/	H2SO4				X X	
15												

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

Request EDD

Relinquished by Sampler: 1.	Relinquished by 2.	Relinquished by 3.
Signature: Joel Barnard	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Date: 9/23/09 Time: 5:30	Date: Time:	Date: Time:
Received By: 1.	**Received By:** 2.	**Received By:** 3.
Signature: M. Gelwicks	Signature:	Signature:
Printed Name:	Printed Name:	Printed Name:
Date: 9-23-09 Time: 1756	Date: Time:	Date: Time:

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

Chain of Custody Record

ASSOCIATED LABORATORIES
806 North Batavia ▪ Orange, CA 92868
Phone: (714) 771-6900 ▪ Fax: (714) 538-1209

A.L. Job No. 241536

Page 2 of 2

Company: Stetson Engineers | Phone: 4154570701
Project Manager: Joel Barnard | Fax:
Project Name: Nutrient Study | Project # 2258
Site Name and Address: Camp Pendleton

	Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	Turb, EC, TDS	Nitrate, Nitrite	Ortho Phosphate	pH, Sulfate	Ammonia, TKN	TP, TKN				Test Instructions & Comments
1	Sandia	Creek	9/23/09	11am	FW	1/		X	X	X	X						
2	Sandia	Creek	9/23/09	11am	FW	1/	H_2SO_4					X	X				
3	SMRd/s	DeLuz	9/23/09	9:53	FW	1/		X	X	X	X						
4	SMRd/s	DeLuz	9/23/09	9:53	FW	1/	H_2SO_4					X	X				
5	SMRd/s	Sandia	9/23/09	12:03	FW	1/		X	X	X	X						
6	SMRd/s	Sandia	9/23/09	12:03	FW	1/	H_2SO_4					X	X				
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Sample Receipt - To Be Filled By Laboratory

Total Number of Containers		Properly Cooled Y / N / NA	
Custody Seals Y / N / NA		Samples Intact Y / N / NA	
Received in Good Condition Y / N		Samples Accepted Y / N	

Turn Around Time

☒ Normal ☐ Rush ☐ Same Day ☐ 24 hrs. ☐ 48 hrs. ☐ 72 hrs.

Request EDD

	1.	2.	3.
Relinquished by Sampler:			
Signature:			
Printed Name:	Joel Barnard		
Date:	9/23/09 Time: 5:30	Date: Time:	Date: Time:
Received By:	1.	2.	3.
Signature:			
Printed Name:			
Date:	9-23-09 Time: 1758	Date: Time:	Date: Time:

Distribution: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator

ASSOCIATED LABORATORIES
806 North Batavia – Orange, California 92868 – 714-771-6900 *FAX 714-538-1209*

SAMPLE ACCEPTANCE CHECKLIST

Section 1
Client: Stetson
Date Received: 9-23-09
Sample(s) received in cooler: (Yes) No (Skip Section 2)
Shipping Information:
Project: 2258 SMR Nutrient study
Sampler's Name: (Yes) No

Section 2
Was the cooler packed with: ✓ Ice ___ Ice Packs ___ Bubble Wrap ___ Styrofoam ___ Paper ___ None ___ Other ___
Cooler or box temperature: 2.0°C

(Acceptance range is 2 to 6 Deg. C.)

Section 3	YES	NO	N/A
Was a COC received?	✓		
Is it properly completed? (IDs, sampling date and time, signature, test)	✓		
Were custody seals present?		✓	
If Yes – were they intact?			
Were all samples sealed in plastic bags?		✓	
Did all samples arrive intact? If no, indicate below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of sample sent for tests indicated?	✓		
Was there headspace in VOA vials?	✓		✓
Were the containers labeled with correct preservatives?	✓		
Was total residual chlorine measured (Fish Bioassay samples only)? *			✓

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

Section 4
Explanations/Comments

Section 5
Was Project Manager notified of discrepancies: Y / N (N/A)

Completed By: [signature] Date: 9-23-09