Site Inspection Memo

To: Stephen Bargsten, Senior Environmental Scientist, Non-point Source and 401 Certification Unit

From: Scott Gergus, Engineering Geologist, Non-point Source and 401 Certification Unit

Date: December 28, 2016

Subject: December 15, 2016, 7205 Geysers Road construction stormwater runoff inspection and sampling event.

File: Cold Creek Ranch, Black Mountain Developers, LLC, 7205 Geysers Road, Geyserville, Sonoma County

Background

Cold Creek Ranch (the Site) is located at 7205 Geysers Road approximately 10 miles from Healdsburg. The 299 acre Site consists of 2 parcels and was purchased in early 2016 by Black Mountain Developers, LLC. The Site is currently being developed to grow cannabis. Site development activities have included clearing and grading of established roads, opening historic roads, construction of new roads, and grading of grow pads.

Inspection of the Site on July 22, 2016, by staff from the Sonoma County Permit and Resource Management Department (PRMD), Sonoma County Agricultural Commissioner's Office, California Department of Fish and Wildlife (CDFW), and the North Coast Water Quality Control Board (Regional Water Board) revealed the above activities had resulted in extensive grading, cuts, and fills on the Site. These activities were performed without submitted and approved plans, an erosion control plan, or evidence of an NPDES General Construction Permit. Consequently, a grading permit was never issued by Sonoma County PRMD to perform the on-site work. As a result, Dan Cahill with the Sonoma County PRMD posted a Stop Work Order on the Site on July 22, 2016 (Photograph 1).

I participated in a multi-agency inspection of the lower portion of the Site bordering Geysers Road on October 20, 2016. Time constraints limited the area the inspection team could cover. The inspection team also included staff from PRMD and CDFW. We observed additional earthwork performed without a Sonoma County Grading Permit and minimal

erosion control work. During the inspection, Mr. Cahill told Darrel Crawford, one of several Site owners, and Clint Gerber, Project Manager, that Black Mountain Developers, LLC, is in violation of the Sonoma County Grading Ordinance and the Stop Work Order. During the inspection, I observed all road work to be substandard and that sediment had discharged from the Site to Cold Creek and the inside ditch of Geysers Road. I told Mr. Crawford and Mr. Gerber that they were in violation of the California Water Code as well as the Water Quality Control Plan for the North Coast Region.

On November 1, 2016, I arrived at the Site at 1414 hours to sample stormwater runoff from the Site and to observe and photograph stormwater runoff. Stormwater was not observed discharging from the Site, so turbidity samples were not collected.

Photograph 4. This is a photograph of the Stop Work Order issued by Dan Cahill, Senior CE Inspector, Permit and Resource Management Department, Code Enforcement Section, on July 22, 2016.

December 15, 2016, Inspection and Stormwater Sampling

On November 1, 2016, I attempted to collect stormwater turbidity samples; however; stormwater runoff was not discharging from the Site so samples were not collected. On December 15, 2016, I arrived to the Site at 1210 hours to sample stormwater runoff and to observe and photograph stormwater runoff. It had rained approximately 1.7 inches (see CoCoRaHS.org Table 1) the previous 2 days. Rainfall data was taken from the Community Collaborative Rain, Hail & Snow Network for weather station CA-SN-29 located 3.2 miles east-southeast of Cloverdale, California. This is the closest weather station to the Site with

available on-line rainfall data. During the sampling event, it was raining very hard and windy.

When I arrived at the Site, CDFW Warden James Reed and PRMD Inspector Dan Cahill were inspecting the Site from Geysers Road. Mr. Cahill said that he had knocked on the recreational vehicles parked in the trailer parking area to request permission to access the Site but no one answered. Warden Reed said that Mr. Gerber was on the Site bulldozing the previous Sunday, December 11, 2016.

Date▲	Time	Station Number	Station Name	Total Precip. Inches	State	County
12/18/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.00	CA	Sonoma
12/17/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.00	CA	Sonoma
12/16/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	1.75	CA	Sonoma
12/15/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	1.44	CA	Sonoma
12/14/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.27	CA	Sonoma
12/13/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.00	CA	Sonoma
12/12/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.00	CA	Sonoma
12/11/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.05	CA	Sonoma
12/10/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	1.53	CA	Sonoma
12/9/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.43	CA	Sonoma
12/8/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.68	CA	Sonoma
12/7/2016	7:00 AM	CA-SN-29	Cloverdale 3.2 ESE	0.00	CA	Sonoma

CoCoRaHS.org Table 1. Rainfall data was copied from the Community Collaborative Rain, Hail & Snow Network for weather station CA-SN-29 located 3.2 miles east-southeast of Cloverdale, California. The rainfall dates December 14, 15, and 16, 2016 are highlighted in yellow. Rainfall readings occur at 7:00 a.m. http://cocorahs.org/ViewData/ListDailyPrecipReports.aspx.

Five stormwater runoff samples (A through E) were taken of stormwater flowing off the Site. All five samples were taken from Geysers Road (Google Earth Map 1). Six sample containers were brought to the Site to sample two discharge locations using three-point sampling technique; however, three-point sampling could not be used at the Site because I could not obtain permission from a Site representative to access the Site.

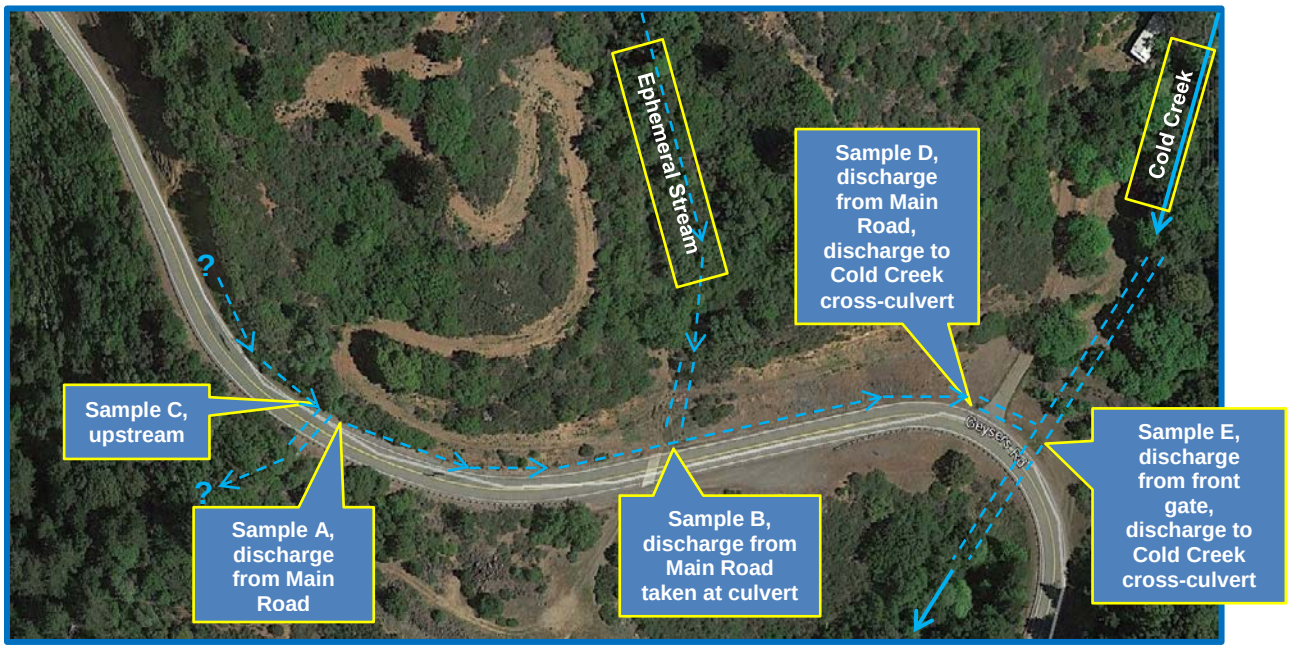
Three-point sampling involves taking three water samples and testing all three water samples for the same pollutant(s) of concern as follows:

1. A background water sample is taken upstream of the site to determine the quality of the water and establishing what is in the water before flowing on site.
2. The second water sample is taken at the point of discharge from the site for the purpose of determining the pollutants and their concentrations.

3. The third sample is taken from the receiving waters some distance downstream after mixing has occurred to determine how site discharge has affected off-site water quality.

Rather, the background sample was obtained from the inside ditch of Geysers Road upstream from Cold Creek Ranch, Main Road stormwater discharge location (Sample A location). Stormwater runoff was discharged from a portion of Geysers Road and Cold Creek Ranch mountainside not affected by road grading and was visibly clear with low turbidity levels (Sample C). The stormwater "point of discharge" samples were taken where stormwater runoff exits the Site and discharges into the inside ditch of Geysers Road or into the drop inlet to Cold Creek cross-culvert. Cold Creek or "receiving waters" were not sampled because accessing Cold Creek was deemed to be hazardous by Warden Reed.

Stormwater turbidity sample containers consisted of clean, 1-liter, labeled, wide mouth, plastic bottles and a cooler filled with ice (Photograph 11). Warden Reed witnessed the stormwater sampling. A photograph was taken of each sample at the sampling location. Heavy rain and extremely windy conditions resulted in raindrops on my camera lens and in some cases extremely blurry photographs. All stormwater samples were taken from Geysers Road and I did not access the Site.



Google Earth Map 1. The satellite imagery was taken from Google Earth, imagery date March 27, 2015, and shows the location of the stormwater runoff samples taken on December 15, 2016. Solid blue line with flow direction represents Cold Creek. Dashed blue line with flow direction represents the ephemeral stream and inside ditch on Geysers Road. Double dashed blue lines represent buried cross culverts.

Stormwater Runoff Sample Information

Sample A. This stormwater sample was taken at 1215 hours on December 15, 2016, from the inside ditch of Geysers Road (Google Earth Map 1). Stormwater runoff was discharging off the Cold Creek Ranch. At this location stormwater was orange-red brown and discharging off the Main Road, flowing down the hillside and Geysers Road cutslope and into the inside ditch. An attempt was made to access the Geysers Road cutslope to observe discharge from the Main Road; however; the brush and chaparral were too dense and prevented access. Refer to Google Earth Map 1, and Photographs 1, 2, and 3.
Laboratory Results: TSS 830 mg/L, pH 6.3, Turbidity 2400 NTU

Photographs 1 and 2. Photograph 1 shows the location where stormwater discharged off the Cold Creek Main Road and entered the inside ditch of Geysers Road and where stormwater Sample A was taken. Photograph 2 shows the Geysers Road inside ditch. The photographer is looking downstream towards the Sample B location which is around the corner.

Photograph 3. This photograph is looking down the inside of Geysers Road and shows the aluminum corrugated metal pipe where Sample B was taken. Warden Reed is opposite the Sample B location.

Sample B. The stormwater sample was taken at 1225 hours on December 15, 2016, from a corrugated metal pipe discharging to the inside ditch of Geysers Road (Google Earth Map 1). Stormwater runoff was discharging off the Cold Creek Ranch. Farther up the mountain side, the stormwater runoff from the Main Road discharges to the ephemeral stream shown on Google Earth Map 1. At this location the stormwater was dark red-brown and rocks could be heard tumbling down the metal pipe. While filling the sample bottle, I felt small rocks hitting my hand. Rocks and grit settled to the bottom of the sampling container. Photographs 5 and 6 show the color differences between the two discharges. Refer to Google Earth Map 1, and Photographs 4, 5, and 6.
Laboratory Results: TSS 2,800 mg/L, pH 6.6, Turbidity >4000 NTU

Photographs 4 and 5. Farther up the mountain side, runoff from the Main Road flows into an ephemeral stream which enters the culvert shown in Photograph 5 and discharges to the inside ditch of Geysers Road. Stormwater runoff Sample B was taken from the discharge exiting the aluminum corrugated metal pipe seen in Photograph 5 (Google Earth Map 1). Raindrops on the camera lens have made the photographs blurry.

Photograph 6. Sample B was taken from the dark red-brown culvert discharge. The photographer is standing on Geysers Road.

Sample C. The stormwater sample was taken at 1230 hours on December 15, 2016; from the inside ditch of Geysers Road approximately 15 feet up the road from Sample A (Google Earth Map 1). Stormwater runoff was discharged from a portion of the Cold Creek Ranch mountainside not affected by road grading. At this location the stormwater was visibly clear with low turbidity levels. This sample represents background water quality conditions. The sample was taken approximately four feet from a cross-culvert on Geysers Road. Refer to Google Earth Map 1, and Photographs 7 and 8.
Laboratory Results: TSS 37 mg/L, pH 6.5, Turbidity 30 NTU

Photographs 7 and 8. Stormwater runoff Sample C was taken from the inside ditch of Geysers Road approximately 15 feet up the road from Sample A location (Google Earth Map 1). Stormwater runoff was discharged from a portion of the Cold Creek Ranch mountainside not affected by road grading. At this location the stormwater was visibly clear with low turbidity levels. The sample was taken approximately four feet upstream from a cross-culvert on Geysers Road. The stormwater runoff is a mix of Geysers Road runoff and stormwater runoff discharged from a portion of the Cold Creek Ranch mountainside not affected by road grading. This stormwater sample represents an upstream unpolluted sample or background sample. Photograph 7 shows the location where Sample C was taken as well as the color of the water sample. The small patch of muddy water is where the author stepped in the inside ditch. Photograph 8 was taken a short distance up the road from Photograph 7.

Sample D. This stormwater sample was taken at 1240 hours on December 15, 2016, from the inside ditch of Geysers Road near the front gate approximately 2 feet upstream of the aluminum corrugated metal pipe cross-culvert. This cross-culvert carries stormwater under the front gate road and connects to the Cold Creek cross-culvert drop inlet (Google Earth Map 1) and discharges to Cold Creek. At this location the color of the stormwater was dark red-brown (Photograph 9). Refer to Google Earth Map 1, and Photograph 9.
Laboratory Results: TSS 480 mg/L, pH 6.9, Turbidity 1700 NTU

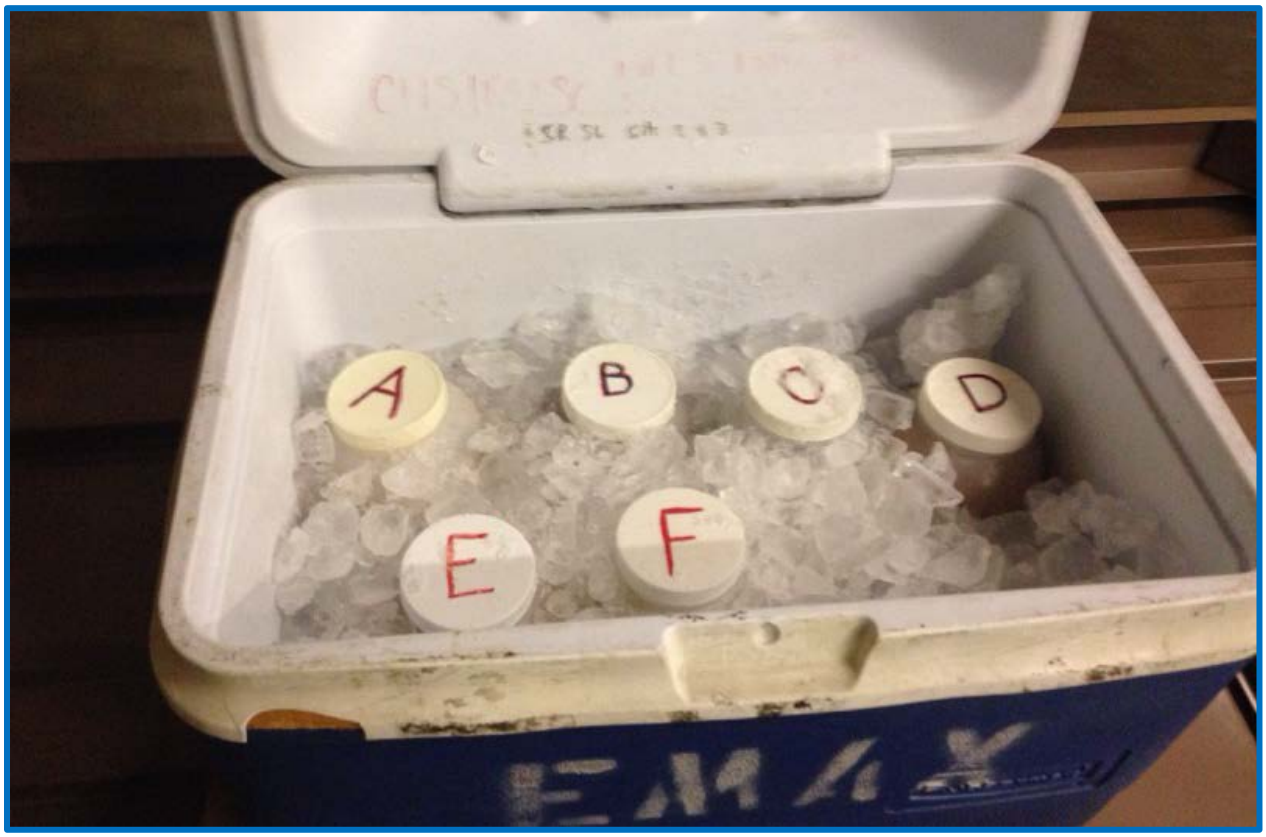
Photograph 9. This photograph shows where stormwater runoff Sample D was taken as well as the dark red-brown color of the water sample (Google Earth Map 1). Water droplets on my camera lens from intense rain and extremely windy conditions caused the blurry photograph. The sample was taken immediately before the stormwater in the inside ditch of Geysers Road entered the corrugated aluminum metal pipe cross culvert seen in the photograph. This cross-culvert carried stormwater under the front gate road and connected to the Cold Creek cross-culvert drop inlet and discharges to Cold Creek.

Sample E. This Cold Creek Ranch stormwater sample was taken at 1245 hours on December 15, 2016. Stormwater discharged from the front gate area and flowed through a series of straw wattle retention structures before entering a grated drop inlet to the Cold Creek cross-culvert (Photograph 10). The orange-brown stormwater sample was taken as water flowed over a straw wattle and into the grated drop inlet and discharged to Cold Creek. Refer to Google Earth Map 1, and Photographs 10 and 11.
Laboratory Results: TSS 540 mg/L, pH 7.1, Turbidity 2400 NTU

Photographs 10 and 11. Photograph 10 shows turbid orange-brown stormwater discharging from the front gate area and flowing through a series of straw wattle retention structures before entering a grated drop inlet to the Cold Creek cross-culvert. The stormwater sample was taken as water flowed over a straw wattle and into the grated drop inlet and discharges to Cold Creek. Photograph 11 shows where stormwater Sample E was taken as well as its orange-brown color.

Stormwater Sample F was taken approximately 1,300 feet farther down Geysers Road and is not associated with Cold Creek Ranch. This discharge originated from 7051 (not 7814) Geysers Road adjacent to the site access road. Warden Reed said this site is associated with several indoor and outdoor cannabis grows. The site is listed as APN 131-010-009, David Phinney Trust and Kimberly L. Phinney Trust. This site will have its own Inspection Memo.
Laboratory Results: TSS 500 mg/L, pH 7.1, Turbidity 300 NTU

All stormwater samples were placed in an iced cooler (Photograph 12) and transported to Brelje and Race Laboratories, 425 South E Street, Santa Rosa, (707) 544-8807 for analysis. The holding time for turbidity analysis is 48 hours and the samples could not be transported to our contract laboratory, Moore Twinings Associates, located in Fresno, California before the holding time expired. Please see signed Chain of Custody/Analysis Request, Brelje and Race laboratories analytical results and Moore Twinings Associates cover letter, and Moore Twinings Associates Invoice.



Photograph 12. This photograph was taken the afternoon of December 15, 2016, and shows the iced stormwater Samples A through F taken from 7205 Geysers Road and 7051 Geysers Road. The iced stormwater samples were stored in our office and transported to Brelje and Race Laboratories the afternoon of December 16, 2016, where they were promptly analyzed.

Chain of Custody/Analysis Request

MOORE TWINING

ANALYTICAL CHEMISTRY DIVISION
CALIFORNIA ELAP CERTIFICATION # 1371

CHAIN OF CUSTODY/ANALYSIS REQUEST
2527 FRESNO STREET • FRESNO, CA 93721 • PHONE (559) 268-7021 • FAX: (559) 268-0740

WORK ORDER #:
PAGE_____ OF_____

ATTENTION: North Coast Regional Water Quality	ATTENTION: Moore - Twining
NAME: Scott A. Gergus	NAME: Julio Morales
ADDRESS: 5550 Skylane Blvd, Suite A, Santa Rosa, CA 95403	ADDRESS: 2527 Fresno St., Fresno, CA Invoice To
PHONE: (707) 576-2685	PHONE: (559) 777-8961
FAX: (707) 523-0135	FAX: (559) 268-7126

☐ STANDARD FORMAT
☐ EDT (STATE FORM)
☐ GEOTRACKER/COELT (LUFT)
☐ PDF ☐ EXCEL
☐ County DHS :
☐ Environmental Health Agency :
☐ OTHER:

SAMPLE INFORMATION

SAMPLED BY (PRINT): Scott A. Gergus
SIGNATURE: Scott A. Gergus
☐ PUBLIC SYSTEM ☐ ROUTINE
☐ PRIVATE WELL ☐ REPEAT
☐ OTHER ☐ REPLACEMENT
TURN AROUND TIME: ☐ RUSH, DUE ON:
☐STANDARD

SAMPLE TYPES:
SOLID:
BS - BIOSOLID
CR - CERAMIC
SL - SOIL/SOLID
LIQUID:
DW - DRINKING WATER
GW - GROUND WATER
OL - OIL
SF - SURFACE WATER
(ST) - STORM WATER
WW - WASTE WATER

PROJECT INFORMATION
CONTRACT/P.O. NO.:
PROJECT:
PROJECT NUMBER:

ANALYSIS REQUESTED

LAB USE

NOTES ON RECEIVED CONDITION:
☐ CUSTODY SEAL(S) BROKEN ☐ SAMPLE(S) DAMAGED
☐ ON ICE ☐ AMBIENT TEMP. ☐ INCORRECT PRESERVATION

CLIENT SAMPLE ID	DATE	TIME	TYPE	pH	Turbidity	SSC ~~Suspended Sediment Concentr.~~	~~Solids (GAG 12-16-16)~~ TSS (SAG 12-16-16)						System Number / Station Code
A Cold Creek Ranch	12-15-16	1215	ST	✓	✓	✓							
B Cold Creek Ranch	12-15-16	1225	ST	✓	✓	✓							
C Cold Creek Ranch	12-15-16	1230	ST	✓	✓	✓							
D Cold Creek Ranch	12-15-16	1240	ST	✓	✓	✓							
E Cold Creek Ranch	12-15-16	1245	ST	✓	✓	✓							
F 7814 Geysers Rd.	12-15-16	1255	ST	✓	✓	✓							

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY
Scott A. Gergus	NCRWQCB	12-16-2016	1312 hrs	[illegible]	Brelje & Ra
		12/16/16	1:10	12	Labs

FL-SC-0005-02

Brelje and Race Laboratories Analytical Results and Moore Twinings Associates Cover Letter

MOORE TWINING

2527 Fresno Street
Fresno, CA 93721
Office: (559) 268-7021
Fax: (559) 268-0740

California ELAP Certificate #1371

Analytical Chemistry Division

January 17, 2017

Work Order #: DA11021

Rich Fadness
RWQCB North Coast
5550 Skylane Blvd., Suite A, 1st Floor
Santa Rosa, CA 95403

RE: Agreement #15-054-110

Enclosed are the analytical results for samples received by Brelje and Race Laboratory on 12/16/16. For your reference, these analyses have been assigned laboratory work order number DA11021.

Please find enclosed the official letter of documentation for the TSS, pH, Turbidity analysis from the subcontracted laboratory, which was received by our laboratory on 1/11/17.

All analyses have been performed according to our subcontractor laboratory's quality assurance program. All results are intended to be considered in their entirety, Moore Twining Associates, Inc. (MTA) is not responsible for use of less than complete reports. Results only apply to samples analyzed.

If you have any questions, Please feel free to contact us at the number listed above.

Sincerely,

Moore Twining Associates, Inc.

Julio Morales
Client Services Supervisor

BRELJE AND RACE LABORATORIES, INC.

December 22, 2016

Sample Collected: 12/15/16
Sample Received: 12/16/16
Collected By : SG
CC : Scott Gergus @ NCRWQCB

Moore Twining Associates, Inc.
C/o Julio Morles
2527 Fresno Street
Fresno, CA. 93721

Cold Creek Ranch
Stormwater

LOG NUMBER	1216-25122	1216-25123	1216-25124
Sample Description:	Location A	Location B	Location C
ANALYSIS			
Total Suspended Solids mg/L (Std. Mthds. 2540 D, 1997)	830.	2800.	37.
pH Std. unit (Std. Mthds. 4500-H⁺ B, 2000)	6.3	6.6	6.5
Turbidity NTU (Std. Mthds. 2130 B, 2001)	2400.	>4000.	30.

Note: pH received "out of hold time".

BRELJE AND RACE LABORATORIES, INC.

JILL BRODT, LABORATORY MANAGER

JB:lja

425 SOUTH E STREET • SANTA ROSA, CALIFORNIA 95404 • (707) 544-8807

BRELJE AND RACE LABORATORIES, INC.

December 22, 2016

Sample Collected: 12/15/16
Sample Received: 12/16/16
Collected By : SG
CC : Scott Gergus @ NCRWQCB

Moore Twining Associates, Inc.
C/o Julio Morles
2527 Fresno Street
Fresno, CA. 93721

Cold Creek Ranch
Stormwater

LOG NUMBER	1216-25125	1216-25126
Sample Description:	Location D	Location E
ANALYSIS		
Total Suspended Solids mg/L (Std. Mthds. 2540 D, 1997)	480.	540.
pH Std. unit (Std. Mthds. 4500-H+ B, 2000)	6.9	7.1
Turbidity NTU (Std. Mthds. 2130 B, 2001)	1700.	2400.

Note: pH received "out of hold time".

BRELJE AND RACE LABORATORIES, INC.

Jill Brodt

JILL BRODT, LABORATORY MANAGER

JB:lja

425 SOUTH E STREET • SANTA ROSA, CALIFORNIA 95404 • (707) 544-8807

BRELJE AND RACE LABORATORIES, INC.

December 22, 2016

Sample Collected: 12/15/16
Sample Received: 12/16/16
Collected By : SG
CC : Scott Gergus @ NCRWQCB

Moore Twining Associates, Inc.
C/o Julio Morles
2527 Fresno Street
Fresno, CA. 93721

7814 Geysers Road
Stormwater

LOG NUMBER	**1216-25127**
Sample Description:	Location F

ANALYSIS

Total Suspended Solids mg/L (Std. Mthds. 2540 D, 1997)	500.
pH Std. unit (Std. Mthds. 4500-H^+ B, 2000)	7.1
Turbidity NTU (Std. Mthds. 2130 B, 2001)	300.

Note: pH received "out of hold time".

BRELJE AND RACE LABORATORIES, INC.

Jill Brodt

JILL BRODT, LABORATORY MANAGER

JB:lja

425 SOUTH E STREET • SANTA ROSA, CALIFORNIA 95404 • (707) 544-8807

Moore Twinings Associates Invoice

MOORE TWINING ASSOCIATES, INC.

California ELAP Certificate #1371

INVOICE

2527 Fresno Street
Fresno, CA 93721
Office: (559) 268-7021
Fax: (559) 268-0740

Invoice To:
Rich Fadness
RWQCB - North Coast
5550 Skylane Blvd., Suite A, 1st Floor
Santa Rosa, CA 95403

MTA Invoice Number
7123823

Invoiced On:
01/17/17

Please remit payment to:
Accounts Receivable
Moore Twining Associates, Inc.
2527 Fresno Street
Fresno, CA 93721

Client PO Number

Work Order(s)
DA11021

Project
Agreement #15-054-110

Client
Rich Fadness
RWQCB - North Coast

Received on:
01/11/17

Project Number
[none]

Project Manager
Julio Morales

Terms
NET 30

Bid Number
Agreement #15-054-110

Quantity	Analysis/Description	Matrix	Unit Cost	Extended Cost
Brelje and Race Laboratories, Inc.				
6	Turbidity by 180.1 [10 day]	Water	$23.00	$138.00
6	TSS [10 day]	Water	$29.90	$179.40
5	pH - Water [10 day]	Water	$23.00	$115.00
1	pH - Water [10 day]	Water	$20.00	$20.00
			Invoice Total:	**$452.40**

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