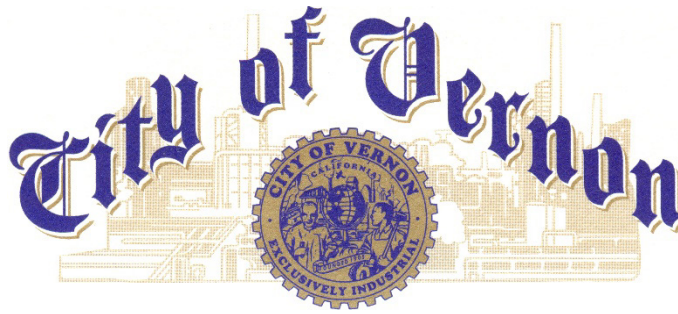


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4305 Santa Fe Avenue, Vernon, California 90058
Telephone (323) 583-8811

January 28, 2022

Dr. Anwar Ali
Compliance Project Manager
Siting, Transmission and Environmental Protection Division
Compliance Monitoring and Enforcement Office
California Energy Commission
715 P Street
Sacramento, CA 95814
anwar.ali@energy.ca.gov

Subject: 2021 Q4 Compliance Report
October 1, 2021 through December 31, 2021
Malburg Generating Station (01-AFC-25C)

Dr. Ali,

Attached please find the Quarterly Compliance Report for the Malburg Generating Station (01-AFC-25C), covering the operational period of October 1, 2021 through December 31, 2021. This report addresses all quarterly requirements identified in the Final Commission Decision for the Malburg Generating Station (TN #28746), as most recently amended on June 20, 2019 by the Errata to Staff Analysis of Petition to Amend the Final Commission Decision (TN #228444).

Please note that, effective December 14, 2021, the City of Vernon, Public Utilities Department is the new owner and operator of the Malburg Generating Station. A Petition for Change in Ownership was filed with the California Energy Commission on December 15, 2021 (TN #240950). Accordingly, if you have any questions or need more information, please contact Matt Richards, Utilities Operations Manager, at MRichards@cityofvernon.org or (323) 583-8811 x378 moving forward.

Sincerely,

Rich Olsen
Assistant General Manager of Generation & Operations
City of Vernon, Public Utilities Department

Enclosure: MGS 2021 Q4 Compliance Report

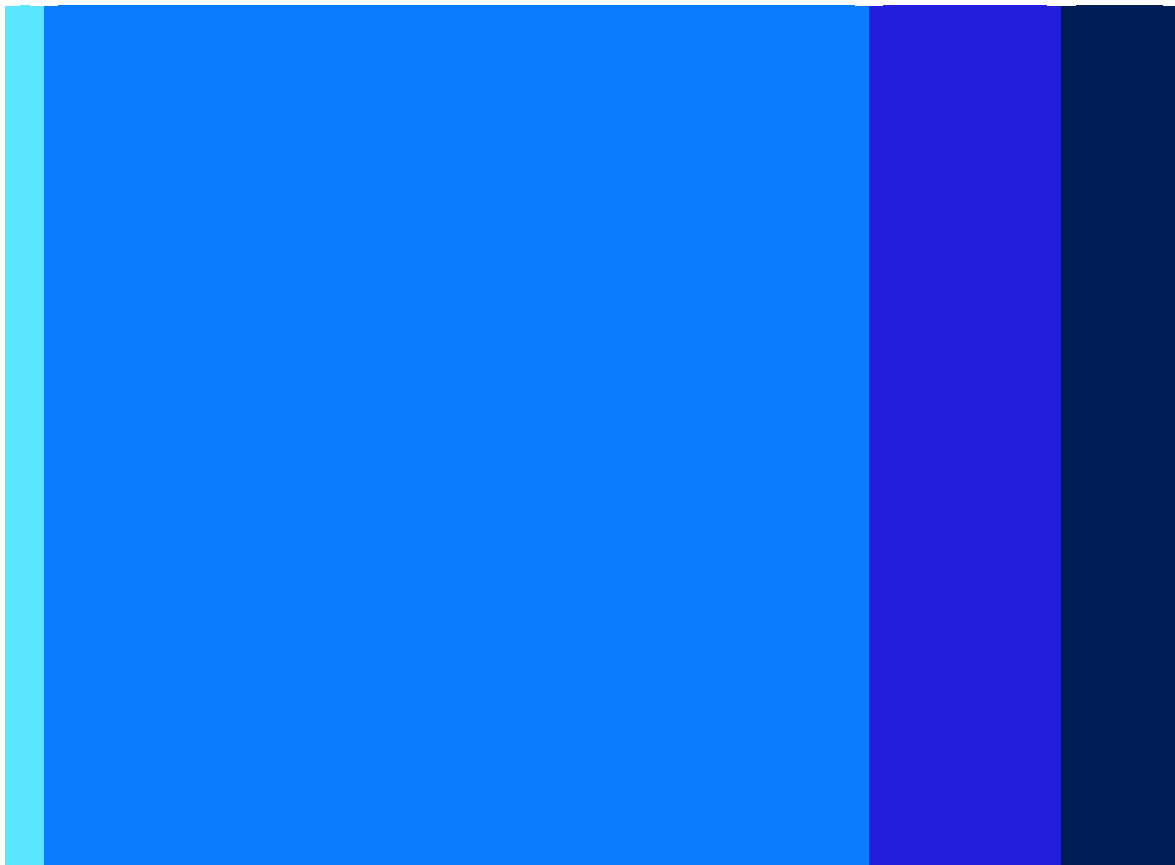
Malburg Generating Station Quarterly Compliance Report (Fourth Quarter 2021)

Submitted to
California Energy Commission

Submitted by
City of Vernon, Public Utilities Department

January 28, 2022

Document no: PPS0127221555SJC
Revision no: 0



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Acronyms and Abbreviations

CEC	California Energy Commission's
CEMS	continuous emissions monitoring system
CO	carbon monoxide
COC	Conditions of Certification
CTGs	combustion turbine generators
DAHS	data acquisition and handling system
gr/scf	grains per standard cubic foot
HRSG	heat recovery steam generators
lb/day	pounds per day
lb/hr	pounds per hour
MGS	Malburg Generating Station
NH ₃	ammonia
NO _x	nitrogen oxides
PM ₁₀	10 microns
PM _{2.5}	2.5 microns
ppmw	parts per million by weight
QCR	Quarterly Compliance Report
RECLAIM	Regional Clean Air Incentives Market
SCAQMD	South Coast Air Quality Management District
SO _x	sulfur oxides
STG	steam turbine generator
TDS	total dissolved solids
VOC	volatile organic compound

1. Introduction

This Quarterly Compliance Report (QCR) has been prepared to meet the California Energy Commission's (CEC) quarterly reporting requirements for the Malburg Generating Station (MGS). This QCR fulfills various Conditions of Certification (COC) described in the CEC's Final Commission Decision for the MGS (TN #28746), as most recently amended on June 20, 2019 by the Errata to Staff Analysis of Petition to Amend the Final Commission Decision (TN #228444).

1.1 Project Location and Description

The MGS is located at 4963 S Soto Street in Vernon, California. The property is approximately 3.4 acres in size, located in an industrial land use area near the geographic center of metropolitan Los Angeles County. MGS consists of two Siemens SGT-800 frame type natural gas combustion turbine generators (CTGs), two heat recovery steam generators (HRSG), a steam turbine generator (STG), a cooling tower, a diesel-fired emergency firewater pump, and support equipment.

The commissioning of MGS was completed in October 2005 and the power plant began commercial operation on October 17, 2005.

1.2 Organization of the Quarterly Compliance Report

A summary of the compliance demonstration for each applicable COC is provided in Section 2 and includes references to Appendices and Tables as appropriate.

2. Required Quarterly Compliance Report Documentation

COC requirements associated with this QCR are summarized in the table below.

Table 2-1. Required Quarterly Compliance Report Documentation

Condition of Certification	Response
AQ-C6	The weekly total dissolved solids (TDS) results for the fourth quarter of 2021 are provided in Appendix A, Table 3; the weekly sample reports collected for the same period are provided in Appendix B. Note that TDS is not sampled during plant outages.
AQ-C7	Daily particulate matter with aerodynamic diameter less than or equal to 10 microns (PM ₁₀) emissions from cooling tower operation during the fourth quarter of 2021 are provided in Appendix A, Tables 4 through 6. As shown, emissions were below the specified limit of 6.2 pounds per day (lb/day).
AQ-C8	Testing times for the diesel-fired emergency firewater pump during the fourth quarter of 2021 are provided in Appendix C, Table 2. MGS refrained from testing the diesel-fired emergency firewater pump in the same hour the CTGs were either started or shutdown.
AQ-C9	The CTG startup and shutdown details for the fourth quarter of 2021, including the duration and date of occurrence, are provided in Appendix C, Table 1.
AQ-C11	All ammonia (NH ₃), nitrogen oxides (NO _x), sulfur oxides (SO _x), carbon monoxide (CO), PM ₁₀ , and volatile organic compound (VOC) emissions from MGS operation during the fourth quarter of 2021 are provided in Appendix A, Table 2. Annual emissions of these same pollutants are provided in Appendix A, Table 1.
AQ-2	Low sulfur diesel fuel was last purchased on March 24, 2021. The fuel purchase record is provided in Appendix D and demonstrates that the fuel does not contain sulfur compounds in excess of 15 parts per million by weight (ppmw).
AQ-3	See the response for COC AQ-2.

Malburg Generating Station Quarterly Compliance Report (Fourth Quarter 2021)

Condition of Certification	Response
AQ-5	Monthly emissions of CO, PM ₁₀ , particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM _{2.5}), VOC, and SO _x from CTG and duct burner operation during the fourth quarter of 2021 are presented in Appendix A, Tables 8 through 10. Fuel usage for each turbine-duct burner pair is provided in Appendix A, Table 7. As shown, emissions were below the monthly limits specified in Condition A63.4 of the site's Title V Permit.
AQ-6	See the response for COC AQ-C9. Note also that MGS did experience an exceedance of its non-cold startup NO _x emissions limit of 51.3 pounds on November 12, 2021. An excess emissions report was filed with the South Coast Air Quality Management District (SCAQMD), as required, and has been included in Appendix E.
AQ-9	See the response for COC AQ-C11. Additionally, quarterly NO _x excess emission reports from the data acquisition and handling system (DAHS) are provided in Appendix E. As demonstrated in these reports, there were no incidents in which the maximum corrected NO _x emissions concentration for both CTGs during normal operations exceeded the emission concentration limit of 2.0 ppmv. All continuous emissions monitoring system (CEMS) data for MGS' CTGs are stored electronically onsite.
AQ-10	See the response for COC AQ-C11. Additionally, quarterly CO excess emission reports from the DAHS are provided in Appendix E. As demonstrated in these reports, there were no incidents in which the maximum corrected CO emissions concentration for both CTGs exceeded the emission concentration limit of 2.0 ppmv. All CEMS data for MGS' CTGs are stored electronically onsite.
AQ-11	See the response for COC AQ-C11. Additionally, quarterly VOC excess emission reports from the DAHS are provided in Appendix E. As demonstrated in these reports, there were no incidents in which the maximum corrected VOC emissions concentration for both CTGs exceeded the emission concentration limit of 2.0 ppmv.
AQ-12	See the response for COC AQ-C11. Additionally, although NH ₃ emissions are calculated via the CEMS on an hourly basis, compliance with the specified limit of 5 parts per million (ppm) is demonstrated through annual source testing. The most recent NH ₃ compliance source test, performed on March 9 and 10, 2021 with results submitted to the CEC on April 22, 2021, indicated compliance with the emission limits for both CTGs (1.7 ppm for CTG 1 and 1.9 ppm for CTG 2).
AQ-13	See the response for COC AQ-C11. Additionally, the most recent triennial compliance source test, performed in August 2019, indicated compliance with the Rule 475 particulate matter emission limits of 5 kilograms per hour (11 pounds per hour [lb/hr]) or 23 milligrams per cubic meter (0.01 grain per standard cubic foot [gr/scf]) for both CTGs (0.69 lb/hr and 0.0003 gr/scf for CTG1 and 1.15 lb/hr and 0.0005 gr/scf for CTG2).
AQ-14	See the response for COC AQ-2.
AQ-15	Annual hours of operation for the diesel-fired emergency firewater pump are provided in Appendix A, Table 11. As shown, the annual hours for maintenance and testing do not exceed 50 hours and the total annual operational hours do not exceed 200 hours.
AQ-27	See the response for COC AQ-5. As shown, fuel consumption per turbine-duct burner pair does not exceed the specified limit of 405 million cubic feet per month.
AQ-32	The NO _x Regional Clean Air Incentives Market (RECLAIM) annual emission allocation information for the MGS facility, received from the SCAQMD for the compliance year, is provided in Appendix F.
AQ-36	See the responses for COC AQ-5 and AQ-6.

Appendix A

MGS Emission Calculations



Malburg Generating Station
Quarterly Compliance Report
Appendix A, Tables 1 & 2

Reporting Period: **Quarter 4 2021**

Table 1. Annual Emissions - Calendar Year 2021

Source	Annual Emissions (lb/year) ¹					
	NOx ²	CO	VOC	SOx	PM ₁₀ /PM _{2.5}	NH ₃ ³
CTG 1 & Duct Burner	16,963	6,070	3,609	660	14,103	5,499
CTG 2 & Duct Burner	18,193	5,789	3,783	688	14,749	7,373
Cooling Tower	--	--	--	--	509	--
Diesel Firewater Pump	130	28.2	10.4	5.81	9.27	--
Total	35,285	11,887	7,402	1,353	29,371	12,871

¹ Unless otherwise noted, annual emissions data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.

² Annual NOx emissions are as submitted to SCAQMD, based on previous quarter submittals and the 4th Quarter 'U1_U2MonthlyRECLAIMNOxSummaryByDay' RegPerfect Report.

³ Annual NH₃ emissions obtained from 'All_MonthlySummary_SCRPerformance' RegPerfect Report.

Table 2. Quarterly Emissions - October 1, 2021 through December 31, 2021

Source	Quarterly Emissions (lb/quarter)					
	NOx	CO	VOC	SOx	PM ₁₀ /PM _{2.5}	NH ₃
CTG 1 & Duct Burner	4,433	1,528	962	176	3,761	1,957
CTG 2 & Duct Burner	4,435	1,418	953	173	3,708	2,174
Cooling Tower	--	--	--	--	133	--
Diesel Firewater Pump	28.9	6.28	2.31	1.29	2.06	--
Total	8,898	2,952	1,917	351	7,604	4,131

**Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 3**

Reporting Period: **Quarter 4 2021**

Table 3. Cooling Tower Total Dissolved Solids (TDS) Sampling Results ¹

Sampling Period		TDS (ppm)
Start Date	End Date	
9/26/2021	10/2/2021	4,540
10/3/2021	10/9/2021	4,820
10/10/2021	10/16/2021	4,320
10/17/2021	10/23/2021	4,530
10/24/2021	10/30/2021	4,780
10/31/2021	11/6/2021	4,480
11/7/2021	11/13/2021	4,640
11/14/2021	11/20/2021	4,720
11/21/2021	11/27/2021	4,800
11/28/2021	12/4/2021	4,920
12/5/2021	12/11/2021	Outage
12/12/2021	12/18/2021	4,340
12/19/2021	12/25/2021	4,400
12/26/2021	1/1/2022	4,480

¹ Sampling results taken from Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 4

Reporting Period: **October 2021**

Cooling Tower Total Dissolved Solids (TDS) Sampling Results

Data Source: Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR

Sample Date	Period		TDS (ppm)
	Start Date	End Date	
9/28/2021	9/26/2021	10/2/2021	4,540
10/5/2021	10/3/2021	10/9/2021	4,820
10/11/2021	10/10/2021	10/16/2021	4,320
10/19/2021	10/17/2021	10/23/2021	4,530
10/25/2021	10/24/2021	10/30/2021	4,780
11/3/2021	10/31/2021	11/6/2021	4,480

Methodology (per Condition of Certification [COC] AQ-C7)

PM_{10} Emissions (lb/day) = Circulation Rate (gal/day) x Density of Water (lb/gal) x Total Dissolved Solids (ppm) / 1,000,000
x Drift Factor (%) / 100 x Correction Factor

Constants

Parameter	Value
Circulation Rate per Pump (gal/min) ¹	13,500
Number of Pumps	2
Total Circulation Rate (gal/min)	27,000
Water Density (lb/gal)	8.334
Drift Factor (%) ²	0.0005
Correction Factor (unitless) ³	0.2

¹ Source: M3-10 Main Circulating Water System P&ID.

² Per COC AQ-C4.

³ Source: SPX Cooling Technologies' Cooling Tower Drift Mass Distribution.

Cooling Tower Daily PM₁₀ Emissions

Date	Circulation Rate (gal/day) ¹	TDS (ppm)	PM ₁₀ Emissions (lb/day)	Above 6.2 lb/day PM ₁₀ Limit? ²
10/1/2021	38,880,000	4,540	1.47	No
10/2/2021	38,880,000	4,540	1.47	No
10/3/2021	38,880,000	4,820	1.56	No
10/4/2021	38,880,000	4,820	1.56	No
10/5/2021	38,880,000	4,820	1.56	No
10/6/2021	38,880,000	4,820	1.56	No
10/7/2021	38,880,000	4,820	1.56	No
10/8/2021	38,880,000	4,820	1.56	No
10/9/2021	38,880,000	4,820	1.56	No
10/10/2021	38,880,000	4,320	1.40	No
10/11/2021	38,880,000	4,320	1.40	No
10/12/2021	38,880,000	4,320	1.40	No
10/13/2021	38,880,000	4,320	1.40	No
10/14/2021	38,880,000	4,320	1.40	No
10/15/2021	38,880,000	4,320	1.40	No
10/16/2021	38,880,000	4,320	1.40	No
10/17/2021	38,880,000	4,530	1.47	No
10/18/2021	38,880,000	4,530	1.47	No
10/19/2021	38,880,000	4,530	1.47	No
10/20/2021	38,880,000	4,530	1.47	No
10/21/2021	38,880,000	4,530	1.47	No
10/22/2021	38,880,000	4,530	1.47	No
10/23/2021	38,880,000	4,530	1.47	No
10/24/2021	38,880,000	4,780	1.55	No
10/25/2021	38,880,000	4,780	1.55	No
10/26/2021	38,880,000	4,780	1.55	No
10/27/2021	38,880,000	4,780	1.55	No
10/28/2021	38,880,000	4,780	1.55	No
10/29/2021	38,880,000	4,780	1.55	No
10/30/2021	38,880,000	4,780	1.55	No
10/31/2021	38,880,000	4,480	1.45	No

¹ Maximum daily circulation rate conservatively used to estimate PM₁₀ emissions when the cooling tower is operated for any part of the day. Circulation rate is zero for days the cooling tower is not operated at all.

² Daily emissions limit established in COC AQ-C7.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 5

Reporting Period: **November 2021**

Cooling Tower Total Dissolved Solids (TDS) Sampling Results

Data Source: Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR

Sample Date	Period		TDS (ppm)
	Start Date	End Date	
11/3/2021	10/31/2021	11/6/2021	4,480
11/8/2021	11/7/2021	11/13/2021	4,640
11/15/2021	11/14/2021	11/20/2021	4,720
11/23/2021	11/21/2021	11/27/2021	4,800
11/29/2021	11/28/2021	12/4/2021	4,920

Methodology (per Condition of Certification [COC] AQ-C7)

PM_{10} Emissions (lb/day) = Circulation Rate (gal/day) x Density of Water (lb/gal) x Total Dissolved Solids (ppm) / 1,000,000
x Drift Factor (%) / 100 x Correction Factor

Constants

Parameter	Value
Circulation Rate per Pump (gal/min) ¹	13,500
Number of Pumps	2
Total Circulation Rate (gal/min)	27,000
Water Density (lb/gal)	8.334
Drift Factor (%) ²	0.0005
Correction Factor (unitless) ³	0.2

¹ Source: M3-10 Main Circulating Water System P&ID.

² Per COC AQ-C4.

³ Source: SPX Cooling Technologies' Cooling Tower Drift Mass Distribution.

Cooling Tower Daily PM₁₀ Emissions

Date	Circulation Rate (gal/day) ¹	TDS (ppm)	PM ₁₀ Emissions (lb/day)	Above 6.2 lb/day PM ₁₀ Limit? ²
11/1/2021	38,880,000	4,480	1.45	No
11/2/2021	38,880,000	4,480	1.45	No
11/3/2021	38,880,000	4,480	1.45	No
11/4/2021	38,880,000	4,480	1.45	No
11/5/2021	38,880,000	4,480	1.45	No
11/6/2021	38,880,000	4,480	1.45	No
11/7/2021	38,880,000	4,640	1.50	No
11/8/2021	38,880,000	4,640	1.50	No
11/9/2021	38,880,000	4,640	1.50	No
11/10/2021	38,880,000	4,640	1.50	No
11/11/2021	38,880,000	4,640	1.50	No
11/12/2021	38,880,000	4,640	1.50	No
11/13/2021	38,880,000	4,640	1.50	No
11/14/2021	38,880,000	4,720	1.53	No
11/15/2021	38,880,000	4,720	1.53	No
11/16/2021	38,880,000	4,720	1.53	No
11/17/2021	38,880,000	4,720	1.53	No
11/18/2021	38,880,000	4,720	1.53	No
11/19/2021	38,880,000	4,720	1.53	No
11/20/2021	38,880,000	4,720	1.53	No
11/21/2021	38,880,000	4,800	1.56	No
11/22/2021	38,880,000	4,800	1.56	No
11/23/2021	38,880,000	4,800	1.56	No
11/24/2021	38,880,000	4,800	1.56	No
11/25/2021	38,880,000	4,800	1.56	No
11/26/2021	38,880,000	4,800	1.56	No
11/27/2021	38,880,000	4,800	1.56	No
11/28/2021	38,880,000	4,920	1.59	No
11/29/2021	38,880,000	4,920	1.59	No
11/30/2021	38,880,000	4,920	1.59	No

¹ Maximum daily circulation rate conservatively used to estimate PM₁₀ emissions when the cooling tower is operated for any part of the day. Circulation rate is zero for days the cooling tower is not operated at all.

² Daily emissions limit established in COC AQ-C7.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 6

Reporting Period: **December 2021**

Cooling Tower Total Dissolved Solids (TDS) Sampling Results

Data Source: Positive Lab's Weekly Cooling Tower Blowdown Reports, as provided in Appendix B of the QCR

Sample Date	Period		TDS (ppm)
	Start Date	End Date	
11/29/2021	11/28/2021	12/4/2021	4,920
Outage ¹	12/5/2021	12/11/2021	Outage
12/14/2021	12/12/2021	12/18/2021	4,340
12/21/2021	12/19/2021	12/25/2021	4,400
12/28/2021	12/26/2021	1/1/2022	4,480

¹ Outage beginning on 12/6/21 and ending on 12/10/21 prevented sampling during this period.

Methodology (per Condition of Certification [COC] AQ-C7)

PM_{10} Emissions (lb/day) = Circulation Rate (gal/day) x Density of Water (lb/gal) x Total Dissolved Solids (ppm) / 1,000,000
x Drift Factor (%) / 100 x Correction Factor

Constants

Parameter	Value
Circulation Rate per Pump (gal/min) ¹	13,500
Number of Pumps	2
Total Circulation Rate (gal/min)	27,000
Water Density (lb/gal)	8.334
Drift Factor (%) ²	0.0005
Correction Factor (unitless) ³	0.2

¹ Source: M3-10 Main Circulating Water System P&ID.

² Per COC AQ-C4.

³ Source: SPX Cooling Technologies' Cooling Tower Drift Mass Distribution.

Cooling Tower Daily PM₁₀ Emissions

Date	Circulation Rate (gal/day) ¹	TDS (ppm) ²	PM ₁₀ Emissions (lb/day)	Above 6.2 lb/day PM ₁₀ Limit? ³
12/1/2021	38,880,000	4,920	1.59	No
12/2/2021	38,880,000	4,920	1.59	No
12/3/2021	38,880,000	4,920	1.59	No
12/4/2021	38,880,000	4,920	1.59	No
12/5/2021	38,880,000	4,920	1.59	No
12/6/2021	38,880,000	4,920	1.59	No
12/7/2021	0	Outage	0.00	No
12/8/2021	0	Outage	0.00	No
12/9/2021	0	Outage	0.00	No
12/10/2021	38,880,000	4,340	1.41	No
12/11/2021	38,880,000	4,340	1.41	No
12/12/2021	38,880,000	4,340	1.41	No
12/13/2021	38,880,000	4,340	1.41	No
12/14/2021	38,880,000	4,340	1.41	No
12/15/2021	38,880,000	4,340	1.41	No
12/16/2021	38,880,000	4,340	1.41	No
12/17/2021	38,880,000	4,340	1.41	No
12/18/2021	38,880,000	4,340	1.41	No
12/19/2021	38,880,000	4,400	1.43	No
12/20/2021	38,880,000	4,400	1.43	No
12/21/2021	38,880,000	4,400	1.43	No
12/22/2021	38,880,000	4,400	1.43	No
12/23/2021	38,880,000	4,400	1.43	No
12/24/2021	38,880,000	4,400	1.43	No
12/25/2021	38,880,000	4,400	1.43	No
12/26/2021	38,880,000	4,480	1.45	No
12/27/2021	38,880,000	4,480	1.45	No
12/28/2021	38,880,000	4,480	1.45	No
12/29/2021	38,880,000	4,480	1.45	No
12/30/2021	38,880,000	4,480	1.45	No
12/31/2021	38,880,000	4,480	1.45	No

¹ Maximum daily circulation rate conservatively used to estimate PM₁₀ emissions when the cooling tower is operated for any part of the day. Circulation rate is zero for days the cooling tower is not operated at all.

² Outage prevented sampling for the 12/5/21 through 12/11/21 period. Results from nearest sampling period used to calculate emissions from operation on 12/5/21 through 12/6/21 and 12/10/21 through 12/11/21.

³ Daily emissions limit established in COC AQ-C7.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Tables 7, 8, 9 & 10

Reporting Period: **Quarter 4 2021**

Table 7. Monthly Turbine-Duct Burner Fuel Flow

Source	October		November		December	
	Fuel Flow (MMscf/month) ¹	Above 405 MMscf/month Limit? ²	Fuel Flow (MMscf/month) ¹	Above 405 MMscf/month Limit? ²	Fuel Flow (MMscf/month) ¹	Above 405 MMscf/month Limit? ²
CTG 1 & Duct Burner	234	No	209	No	183	No
CTG 2 & Duct Burner	235	No	202	No	180	No

¹ Fuel flow data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.

² Monthly fuel flow limit is per Condition of Certification (COC) AQ-27.

Table 8. Monthly Emissions - October 2021

Source	Monthly Emissions (lb/month) ¹					
	NOx ²	CO	VOC	SOx	PM ₁₀ /PM _{2.5}	NH ₃ ³
CTG 1 & Duct Burner	1,628	540	359	65.8	1,406	760
CTG 2 & Duct Burner	1,648	512	363	66.0	1,412	817
Monthly Emission Limits ⁴	N/A	7,633	3,236	227	4,876	N/A
Exceeds Limit?	N/A	No	No	No	No	N/A

¹ Unless otherwise noted, monthly emissions data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.

² Monthly NOx emissions are as submitted to SCAQMD, based on the 'U1_U2MonthlyRECLAIMNOxSummaryByDay' RegPerfect Report.

³ Monthly NH₃ emissions data obtained from 'All_MonthlySummary_SCRPerformance' RegPerfect Report.

⁴ Monthly emission limits are per COC AQ-5.

Table 9. Monthly Emissions - November 2021

Source	Monthly Emissions (lb/month) ¹					
	NOx ²	CO	VOC	SOx	PM ₁₀ /PM _{2.5}	NH ₃ ³
CTG 1 & Duct Burner	1,491	502	321	58.7	1,254	714
CTG 2 & Duct Burner	1,496	465	312	56.7	1,214	791
Monthly Emission Limits ⁴	N/A	7,633	3,236	227	4,876	N/A
Exceeds Limit?	N/A	No	No	No	No	N/A

¹ Unless otherwise noted, monthly emissions data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.

² Monthly NOx emissions are as submitted to SCAQMD, based on the 'U1_U2MonthlyRECLAIMNOxSummaryByDay' RegPerfect Report.

³ Monthly NH₃ emissions data obtained from 'All_MonthlySummary_SCRPerformance' RegPerfect Report.

⁴ Monthly emission limits are per COC AQ-5.

Table 10. Monthly Emissions - December 2021

Source	Monthly Emissions (lb/month) ¹					
	NO _x ²	CO	VOC	SO _x	PM ₁₀ /PM _{2.5}	NH ₃ ³
CTG 1 & Duct Burner	1,314	486	282	51.6	1,101	483
CTG 2 & Duct Burner	1,291	441	278	50.5	1,082	565
Monthly Emission Limits ⁴	N/A	7,633	3,236	227	4,876	N/A
Exceeds Limit?	N/A	No	No	No	No	N/A

¹ Unless otherwise noted, monthly emissions data obtained from 'U1/U2_MonthlySummary_MassEmissionsAndFuel' RegPerfect Report.

² Monthly NO_x emissions are as submitted to SCAQMD, based on the 'U1_U2MonthlyRECLAIMNOxSummaryByDay' RegPerfect Report.

³ Monthly NH₃ emissions data obtained from 'All_MonthlySummary_SCRPerformance' RegPerfect Report.

⁴ Monthly emission limits are per COC AQ-5.

Malburg Generating Station
Quarterly Compliance Report
Appendix A, Table 11

Reporting Period: **Quarter 4 2021**

Methodology

Emissions (lb/month) = Fuel Usage (gal/month) / 1,000 (gal/Mgal) x Emission Factor (lb/Mgal)

Emission Factors

Pollutant	Emission Factor (lb/Mgal)	Reference
NOx	469	Title V Permit
CO	102	SCAQMD Default Combustion Emission Factors (AER, January 2022)
VOC	37.5	SCAQMD Default Combustion Emission Factors (AER, January 2022)
SOx	21	SCAQMD Default Combustion Emission Factors (AER, January 2022)
PM ₁₀ /PM _{2.5}	33.5	SCAQMD Default Combustion Emission Factors (AER, January 2022)

Table 11. Monthly Turbine-Duct Burner Fuel Flow

Month	Monthly Hours of Operation ¹			Fuel Usage (gal/month) ²	Monthly Emissions (lb/month)				
	Maintenance	Testing	Emergency		NOx	CO	VOC	SOx	PM ₁₀ /PM _{2.5}
January	0.0	2.4	0.0	26.9	12.6	2.74	1.01	0.56	0.90
February	0.0	1.5	0.0	16.8	7.88	1.71	0.63	0.35	0.56
March	0.0	2.1	0.0	23.5	11.0	2.40	0.88	0.49	0.79
April	0.0	2.1	0.0	23.5	11.0	2.40	0.88	0.49	0.79
May	0.0	2.1	0.0	23.5	11.0	2.40	0.88	0.49	0.79
June	0.0	2.4	0.0	26.9	12.6	2.74	1.01	0.56	0.90
July	0.0	2.1	0.0	23.5	11.0	2.40	0.88	0.49	0.79
August	0.0	2.5	0.0	28.0	13.1	2.86	1.05	0.59	0.94
September	0.0	2.0	0.0	22.4	10.5	2.28	0.84	0.47	0.75
October	0.0	2.0	0.0	22.4	10.5	2.28	0.84	0.47	0.75
November	0.0	2.0	0.0	22.4	10.5	2.28	0.84	0.47	0.75
December	0.0	1.5	0.0	16.8	7.88	1.71	0.63	0.35	0.56
Total	0.0	24.7	0.0	276.6	130	28.2	10.4	5.81	9.27
Annual Limit for Maintenance and Testing ³			50						
Total Annual Limit ³			200						
Exceeds Limits?			No						

¹ Monthly hours of operation calculated from Device 385/403 run timer readings.

² Fuel usage (gal/month) calculated by multiplying the hours of operation by the unit's maximum fuel throughput (11.2 gal/hour).

³ Annual limits for hours of operation are per Condition of Certification (COC) AQ-15.

Appendix B

Cooling Tower Blowdown Reports





781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

October 04, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2109310
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on September 28, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
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Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548

Report Date: 10/04/21

Submitted: 09/28/21

PLS Report No.: 2109310

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2109310-01) Sampled: 09/28/21 09:30 Received: 09/28/21 13:00											
Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch	
Total Dissolved Solids	4540		1	mg/L	5.0	SM 2540C	09/30/21	10/01/21	dd	BJ10110	

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BJ10110 - -										
Blank										
Prepared: 09/30/21 Analyzed: 10/01/21										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Prepared: 09/30/21 Analyzed: 10/01/21										
Total Dissolved Solids	52.0	5.0	mg/L	50.00		104	80-120			
Duplicate										
Source: 2109310-01 Prepared: 09/30/21 Analyzed: 10/01/21										
Total Dissolved Solids	4560	5.0	mg/L		4540			0.329	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)

SPECIAL INSTRUCTION:



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

October 12, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2110032
Project Name: Malburg Generating Station

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on October 05, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



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Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548

Report Date: 10/12/21

Submitted: 10/05/21

PLS Report No.: 2110032

Project: Malburg Generating Station

Sample ID: Cooling Tower Blowdown Water (2110032-01) Sampled: 10/05/21 08:05 Received: 10/05/21 08:05

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4820		1	mg/L	5.0	SM 2540C	10/07/21	10/08/21	dd	BJ10805

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BJ10805 - -										
Blank										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Total Dissolved Solids	47.0	5.0	mg/L	50.00		94.0	80-120			
Duplicate										
Source: 2110032-01										
Total Dissolved Solids	4970	5.0	mg/L		4820			2.89	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

October 19, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2110082
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on October 11, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



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Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548

Report Date: 10/19/21

Submitted: 10/11/21

PLS Report No.: 2110082

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2110082-01) Sampled: 10/11/21 10:15 Received: 10/11/21 10:15										
Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4320		1	mg/L	5.0	SM 2540C	10/14/21	10/15/21	dd	BJ11502

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BJ11502 --										
Blank										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Total Dissolved Solids	51.0	5.0	mg/L	50.00		102	80-120			
Duplicate Source: 2110082-01										
Total Dissolved Solids	4430	5.0	mg/L		4320			2.32	5	
Duplicate Source: 2110113-10										
Total Dissolved Solids	1020	5.0	mg/L		1020			0.0489	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)

SPECIAL INSTRUCTION:



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

October 25, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2110205
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on October 19, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
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Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548

Report Date: 10/25/21

Submitted: 10/19/21

PLS Report No.: 2110205

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2110205-01) Sampled: 10/19/21 10:25 Received: 10/19/21 10:25										
Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4530		1	mg/L	5.0	SM 2540C	10/21/21	10/22/21	dd	BJ12222

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BJ12222 - -										
Blank										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Total Dissolved Solids	52.0	5.0	mg/L	50.00		104	80-120			
Duplicate Source: 2110205-01										
Total Dissolved Solids	4490	5.0	mg/L		4530			0.813	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

November 02, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2110244

Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on October 25, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
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Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548

Report Date: 11/02/21

Submitted: 10/25/21

PLS Report No.: 2110244

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2110244-01) Sampled: 10/25/21 08:10 Received: 10/25/21 08:10

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4780		1	mg/L	5.0	- SM 2540C	10/28/21	10/29/21	dd	BK10122

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BK10122 - -										
Blank Prepared: 10/28/21 Analyzed: 10/29/21										
Total Dissolved Solids	ND	5.0	mg/L							
LCS Prepared: 10/28/21 Analyzed: 10/29/21										
Total Dissolved Solids	50.0	5.0	mg/L	50.00		100	80-120			
Duplicate Source: 2110244-01 Prepared: 10/28/21 Analyzed: 10/29/21										
Total Dissolved Solids	4650	5.0	mg/L		4780			2.93	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)

SPECIAL INSTRUCTION:



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

November 11, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2111071
Project Name: Malburg Generating Station

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on November 03, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

A handwritten signature in black ink, appearing to read "John Schmitt", is written over a horizontal line.

Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
[213] 745-5312 FAX [213] 745-6372

Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548

Report Date: 11/11/21

Submitted: 11/03/21

PLS Report No.: 2111071

Project: Malburg Generating Station

Sample ID: Cooling Tower Blowdown Water (2111071-01) Sampled: 11/03/21 08:45 Received: 11/03/21 08:45

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4480		1	mg/L	5.0	- SM 2540C	11/09/21	11/10/21	dd	BK11044

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BK11044 - -										
Blank										
Prepared: 11/09/21 Analyzed: 11/10/21										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Prepared: 11/09/21 Analyzed: 11/10/21										
Total Dissolved Solids	53.0	5.0	mg/L	50.00		106	80-120			
Duplicate										
Source: 211104-01 Prepared: 11/09/21 Analyzed: 11/10/21										
Total Dissolved Solids	4610	5.0	mg/L		4640			0.469	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

November 12, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2111104
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on November 08, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.

A handwritten signature in blue ink, reading "D. Sanchez", is written over a horizontal line. Below the line, the text "Project Manager" is printed.

Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX:(323) 476-3640

Project: Malburg Generating Station Weekly

File #:74548
Report Date: 11/12/21
Submitted: 11/08/21
PLS Report No.: 2111104

Sample ID: Cooling Tower Blowdown Water (2111104-01) Sampled: 11/08/21 09:05 Received: 11/08/21 09:05

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4640		1	mg/L	5.0	- SM 2540C	11/09/21	11/10/21	dd	BK11044

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BK11044 - -										
Blank										
Prepared: 11/09/21 Analyzed: 11/10/21										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Prepared: 11/09/21 Analyzed: 11/10/21										
Total Dissolved Solids	53.0	5.0	mg/L	50.00		106	80-120			
Duplicate										
Source: 2111104-01 Prepared: 11/09/21 Analyzed: 11/10/21										
Total Dissolved Solids	4610	5.0	mg/L		4640			0.469	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



781 East Washington Blvd., Los Angeles, CA 90021
[213] 745-5312 FAX [213] 745-6372

PAGE: 1 OF 1

LAB NO.: 21104

AIRBILL NO:

COOLER TEMP: 12.0°C

PRESERVED: _____

REMARKS: _____

1. **Introduction**

1. *Journal of the American Medical Association*, 1997; 278: 1039-1044.

10. *Journal of the American Statistical Association*, 93, 1998, 1039-1052.

[illegible]

SAMPLE DISPOSITION

426700

Time:

Time:

2. Samples will not be stored over 30 days, unless additional storage time is requested

3. Storage time requested: _____ days,

By: _____ Date: _____

SPECIAL INSTRUCTION:



781 East Washington Blvd., Los Angeles, CA 90021
[213] 745-5312 FAX [213] 745-6372

November 22, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2111172
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on November 15, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



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Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX:(323) 476-3640

Project: Malburg Generating Station Weekly

File #:74548
Report Date: 11/22/21
Submitted: 11/15/21
PLS Report No.: 2111172

Sample ID: Cooling Tower Blowdown Water (2111172-01) Sampled: 11/15/21 10:45 Received: 11/15/21 10:45

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4720		1	mg/L	5.0	- SM 2540C	11/18/21	11/19/21	dd	BK11901

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qualifier
Batch BK11901 - -									
Blank									
Prepared: 11/18/21 Analyzed: 11/19/21									
Total Dissolved Solids	ND	5.0	mg/L						
LCS									
Prepared: 11/18/21 Analyzed: 11/19/21									
Total Dissolved Solids	49.0	5.0	mg/L	50.00		98.0 80-120			
Duplicate									
Source: 2111172-01 Prepared: 11/18/21 Analyzed: 11/19/21									
Total Dissolved Solids	4650	5.0	mg/L		4720		1.53	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 11-15-21 PAGE: 1 OF 1

FILE NO.: LAB NO.: 21172

CLIENT NAME: COLORADO ENERGY MGMT.						PROJECT NAME/NO.				MALBURG GENERATING STATION				P.O.NO.				AIRBILL NO:					
ADDRESS: 2715 E. 50th ST. VERNON CA 90058										ANALYSES REQUESTED								COOLER TEMP: /-10°C					
PROJECT MANAGER TOM BARNHART						PHONE NO: 1-702-413-2525 FAX NO:														PRESERVED: _____			
SAMPLER NAME: JOHN BARIE						SIGNATURE: [Signature]														REMARKS: _____			
TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal																							
CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other																							
UST PROJECT: Y N GLOBAL ID#: _____																						SAMPLE CONDITIONS/ CONTAINER/COMMENTS	
SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX WATER SOIL SLUDGE OTHER				TAT	CONTAINER # TYPE		TDS												
	11-15-21	1045	COOLING TOWER BLOWDOWN	X				N	1	P		X											
Relinquished by (Signature& Name): [Signature]										Received by (Signature & Name): Guadalupe Tanaka				Date: 11-15-21		Time: 1120		SAMPLE DISPOSITION 1. Samples returned to client? Yes No 2. Samples will not be stored over 30 days, unless additional storage time is requested 3. Storage time requested: _____ days. By: _____ Date: _____					
Relinquished by (Signature& Name):										Received by (Signature & Name):				Date:		Time:							
Relinquished by (Signature& Name):										Received by (Signature & Name):				Date:		Time:							
SPECIAL INSTRUCTION:																							



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

December 03, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2111260
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on November 23, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.



Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
[213] 745-5312 FAX [213] 745-6372

Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548

Report Date: 12/03/21

Submitted: 11/23/21

PLS Report No.: 2111260

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2111260-01) Sampled: 11/23/21 08:10 Received: 11/23/21 08:10

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4800		1	mg/L	5.0	- SM 2540C	11/30/21	12/01/21	dd	BL10232

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BL10232 --										
Blank										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Total Dissolved Solids	53.0	5.0	mg/L	50.00		106	80-120			
Duplicate										
Source: 2111282-01										
Total Dissolved Solids	4920	5.0	mg/L		4920			0.102	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Rick Owen Parker

Authorized Signature(s)



CHAIN OF CUSTODY AND ANALYSIS REQUEST

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372DATE: 1/13/21 PAGE: 1 OF 1FILE NO.: LAB NO.: 2111200

CLIENT NAME: COLORADO ENERGY MGMT.				PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY				P.O.NO.				AIRBILL NO:									
ADDRESS: 2715 E. 50th ST. VERNON CA 90058												ANALYSES REQUESTED				COOLER TEMP: <u>14.5°C</u>					
PROJECT MANAGER TOM BARNHART				PHONE NO: 1-702-413-2525				FAX NO:								PRESERVED: <u>/</u>					
SAMPLER NAME: JOHN BARIE				SIGNATURE: <u>[Signature]</u>				REMARKS: _____													
TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal																					
CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other																					
UST PROJECT: Y N GLOBAL ID#: -----												TDS				SAMPLE CONDITIONS/ CONTAINER/COMMENTS					
SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER												
				WATER	SOIL	SLUDGE	OTHER		#	TYPE											
	<u>1/13/21</u>	<u>0810</u>	COOLING TOWER BLOWDOWN	X				N	1	P	X										

Relinquished by (Signature & Name):

[Signature] John Barie

Received by (Signature & Name):

[Signature] Guadalupe Tanaka

Date:

1/13/21

Time:

1045

SAMPLE DISPOSITION

1. Samples returned to client? Yes No

2. Samples will not be stored over 30 days,
unless additional storage time is requested

3. Storage time requested: _____ days,

By: _____ Date: _____

Relinquished by (Signature & Name):

Received by (Signature & Name):

Date:

Time:

Relinquished by (Signature & Name):

Received by (Signature & Name):

Date:

Time:

SPECIAL INSTRUCTION:



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

December 03, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2111282
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on November 29, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548
Report Date: 12/03/21
Submitted: 11/29/21
PLS Report No.: 2111282

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2111282-01) Sampled: 11/29/21 08:40 Received: 11/29/21 08:40

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4920		1	mg/L	5.0	- SM 2540C	11/30/21	12/01/21	dd	BL10232

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	-------------	-----	-----------	-----------

Batch BL10232 - -

Blank Prepared: 11/30/21 Analyzed: 12/01/21

Total Dissolved Solids ND 5.0 mg/L

LCS Prepared: 11/30/21 Analyzed: 12/01/21

Total Dissolved Solids 53.0 5.0 mg/L 50.00 106 80-120

Duplicate Source: 2111282-01 Prepared: 11/30/21 Analyzed: 12/01/21

Total Dissolved Solids 4920 5.0 mg/L 4920 0.102 5

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



CHAIN OF CUSTODY AND ANALYSIS REQUEST

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: 11/29/21 PAGE: 1 OF 1

FILE NO.:

LAB NO.: 211282

CLIENT NAME: COLORADO ENERGY MGMT.				PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY				P.O.NO.				AIRBILL NO:									
ADDRESS: 2715 E. 50th ST. VERNON CA 90058												ANALYSES REQUESTED				COOLER TEMP: 1/10					
PROJECT MANAGER TOM BARNHART				PHONE NO: 1-702-413-2525				FAX NO:								PRESERVED: _____					
SAMPLER NAME: JOHN BARIE				SIGNATURE: <i>[Signature]</i>				REMARKS: _____													
TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal																					
CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other																					
UST PROJECT: Y N GLOBAL ID#: -----												TDS				SAMPLE CONDITIONS/ CONTAINER/COMMENTS					
SAMPLE	DATE	TIME	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER												
ID	SAMPLED	SAMPLED		WATER	SOIL	SLUDGE	OTHER		#	TYPE											
	11/29/21	0840	COOLING TOWER BLOWDOWN	X				N	1	P	X										

Relinquished by (Signature & Name):

[Signature] Jenna Barie

Received by (Signature & Name):

[Signature] Guadalupe Tanaka 11/29/21

Date:

Time:

12/0

Relinquished by (Signature & Name):

Received by (Signature & Name):

Date:

Time:

Relinquished by (Signature & Name):

Received by (Signature & Name):

Date:

Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____ days, By: _____ Date: _____

SPECIAL INSTRUCTION:



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

December 28, 2021

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2112229
Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on December 14, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

Project: Malburg Generating Station Weekly

File #: 74548
Report Date: 12/28/21
Submitted: 12/14/21
PLS Report No.: 2112229

Sample ID: Cooling Tower Blowdown Water (2112229-01) Sampled: 12/14/21 08:40 Received: 12/14/21 08:40

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4340		1	mg/L	5.0	SM 2540C	12/15/21	12/16/21	vc	BL11712

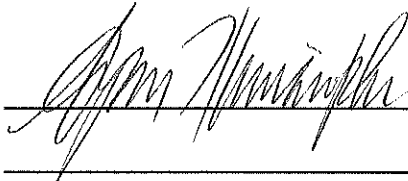
Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qualifier
Batch BL11712 - -									
Blank									
Prepared: 12/15/21 Analyzed: 12/16/21									
Total Dissolved Solids	ND	5.0	mg/L						
LCS									
Prepared: 12/15/21 Analyzed: 12/16/21									
Total Dissolved Solids	49.0	5.0	mg/L	50.00		98.0 80-120			
Duplicate									
Source: 2112229-01 Prepared: 12/15/21 Analyzed: 12/16/21									
Total Dissolved Solids	4140	5.0	mg/L		4340		4.72	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138


Authorized Signature(s)



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

January 03, 2022

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2112401

Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on December 21, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX:(323) 476-3640

File #:74548

Report Date: 01/03/22

Submitted: 12/21/21

PLS Report No.: 2112401

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2112401-01) Sampled: 12/21/21 08:35 Received: 12/21/21 08:35

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4400		1	mg/L	5.0	- SM 2540C	12/27/21	12/28/21	vc	BL12829

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BL12829 --										
Blank										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Total Dissolved Solids	51.0	5.0	mg/L	50.00		102	80-120			
Duplicate										
Source: 2112401-01										
Total Dissolved Solids	4190	5.0	mg/L		4400			4.70	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



CHAIN OF CUSTODY AND ANALYSIS REQUEST

781 East Washington Blvd., Los Angeles, CA 90021
[213] 745-5312 FAX [213] 745-6372

DATE: _____ PAGE: _____ OF _____

FILE NO.: _____ LAB NO.: 214401

CLIENT NAME: COLORADO ENERGY MGMT. PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO. AIRBILL NO: 761

ADDRESS: 2715 E. 50th ST. VERNON CA 90058

ANALYSES REQUESTED

PROJECT MANAGER TOM BARNHART PHONE NO: 1-702-413-2525 FAX NO:

SAMPLER NAME: JOHN BARIE SIGNATURE: [Signature]

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: -----

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		TDS											SAMPLE CONDITIONS/ CONTAINER/COMMENTS
				WATER	SOIL	SLUDGE	OTHER		#	TYPE												
	12/21	0835	COOLING TOWER BLOWDOWN	X				N	1	P	X											

Relinquished by (Signature & Name):

[Signature]

Received by (Signature & Name):

Guadalupe Tanaka

Date:

Time:

12/21/24 1020

Relinquished by (Signature & Name):

Received by (Signature & Name):

Date:

Time:

Relinquished by (Signature & Name):

Received by (Signature & Name):

Date:

Time:

SAMPLE DISPOSITION

1. Samples returned to client? Yes No
2. Samples will not be stored over 30 days, unless additional storage time is requested
3. Storage time requested: _____ days, By: _____ Date: _____

SPECIAL INSTRUCTION:

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

January 04, 2022

Tom Barnhart
Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Report No.: 2112481

Project Name: Malburg Generating Station Weekly

Dear Tom Barnhart,

This report contains the analytical results for the sample(s) received under chain of custody(s) by Positive Lab Service on December 28, 2021.

The test results in this report are performed in compliance with ELAP accreditation requirements for the certified parameters. The laboratory report may not be produced, except in full, without the written approval of the laboratory.

The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Preliminary data should not be used for regulatory purposes. Authorized signature(s) is provided on final report only.

If you have any questions in reference to this report, please contact your Positive Lab Service coordinator.


Project Manager



781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Certificate of Analysis

Page 2 of 2

Colorado Energy Management
4963 Soto St.
Vernon, CA 90058

Attn: Tom Barnhart

Phone: (323) 476-3626 FAX: (323) 476-3640

File #: 74548

Report Date: 01/04/22

Submitted: 12/28/21

PLS Report No.: 2112481

Project: Malburg Generating Station Weekly

Sample ID: Cooling Tower Blowdown Water (2112481-01) Sampled: 12/28/21 07:50 Received: 12/28/21 07:50

Analyte	Results	Flag	D.F.	Units	PQL	Prep/Test Method	Prepared	Analyzed	By	Batch
Total Dissolved Solids	4480		1	mg/L	5.0	SM 2540C	12/29/21	12/30/21	vc	BA20326

Quality Control Data

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch BA20326 - -										
Blank										
Prepared: 12/29/21 Analyzed: 12/30/21										
Total Dissolved Solids	ND	5.0	mg/L							
LCS										
Prepared: 12/29/21 Analyzed: 12/30/21										
Total Dissolved Solids	48.0	5.0	mg/L	50.00		96.0	80-120			
Duplicate										
Source: 2112494-02 Prepared: 12/29/21 Analyzed: 12/30/21										
Total Dissolved Solids	50.0	5.0	mg/L		48.0			4.08	5	

Notes and Definitions

NA Not Applicable
ND Analyte NOT DETECTED at or above the detection limit
NR Not Reported
MDL Method Detection Limit
PQL Practical Quantitation Limit

Environmental Laboratory Accreditation Program Certificate No. 1131, Mobile Lab No. 2534, LACSD No. 10138

Authorized Signature(s)



CHAIN OF CUSTODY AND ANALYSIS REQUEST

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

DATE: _____ PAGE: _____ OF _____

FILE NO.: _____ LAB NO.: 211249821

CLIENT NAME: COLORADO ENERGY MGMT. PROJECT NAME/NO. MALBURG GENERATING STATION WEEKLY P.O.NO. AIRBILL NO:

ADDRESS: 2715 E. 50th ST. VERNON CA 90058 ANALYSES REQUESTED COOLER TEMP: 1.5°C - 2.0°C

PROJECT MANAGER TOM BARNHART PHONE NO: 1-702-413-2525 FAX NO: PRESERVED:

SAMPLER NAME: JOHN BARIE SIGNATURE: REMARKS:

TAT (Turn-Around-Time): 0=Same Day; 1=24 Hour; 2=48Hour; (ETC.) N=Normal

CONTAINER TYPES: B=Brass; E=Encore/Easy Draw; P=Plastic; G=Glass; V=VOA Vial; O=Other

UST PROJECT: Y N GLOBAL ID#: -----

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX				TAT	CONTAINER		TDS											SAMPLE CONDITIONS/ CONTAINER/COMMENTS
				WATER	SOIL	SLUDGE	OTHER		#	TYPE												
	12/28/21	6750	COOLING TOWER BLOWDOWN	X				N	1	P	X											

Relinquished by (Signature & Name): 	Received by (Signature & Name): 	Date: 12/28/21	Time: 1035	SAMPLE DISPOSITION 1. Samples returned to client? Yes No 2. Samples will not be stored over 30 days, unless additional storage time is requested 3. Storage time requested: _____ days, By: _____ Date: _____
Relinquished by (Signature & Name):	Received by (Signature & Name):	Date:	Time:	
Relinquished by (Signature & Name):	Received by (Signature & Name):	Date:	Time:	

SPECIAL INSTRUCTION:

PRESERVATIVE 1-HNO3 2-H2SO4 3-HCL 4- ZINC ACETATE 5-NaOH 6-NH4 BUFFER 7- OTHER

Appendix C

Operation Logs



Malburg Generating Station
Appendix C, Table 1
Combustion Turbine Generator (CTG) Startup and Shutdown Events
During Quarter 4, 2021

CTG 1

Date	Event Type	Event Start	Event End	Duration (hrs:min)
10/4/2021	Trip	23:05	23:05	0:00
10/5/2021	Hot Start	01:21	02:27	1:06
11/11/2021	Shutdown	11/10/21-23:56	11/11/21-00:13	0:17
11/12/2021	Warm Start	17:23	18:37	1:14
12/6/2021	Shutdown	12/5/21-23:58	12/6/21-00:06	0:08
12/10/2021	Cold Start	21:01	22:27	1:26

CTG 2

Date	Event Type	Event Start	Event End	Duration (hrs:min)
10/4/2021	Trip	23:05	23:05	0:00
10/5/2021	Hot Start	03:19	04:30	1:11
11/10/2021	Shutdown	11/9/21-23:59	11/10/21-00:07	0:08
11/11/2021	Warm Start	18:35	N/A	Unsuccessful ¹
11/11/2021	Shutdown	19:19	19:23	0:04
11/12/2021	Warm Start	12:57	14:27	1:30
12/5/2021	Shutdown	18:01	18:09	0:08
12/10/2021	Cold Start	12/10/21-23:53	12/11/21-01:15	1:22

¹ CTG 2 had to be shutdown (controlled) due to a failed HP steam temperature probe at the Steam Turbine Generator admission.

Malburg Generating Station
Appendix C, Table 2
Diesel Firewater Pump Testing Times
During Quarter 4, 2021

Date	Time (hh:mm)	Start Hours	End Hours	Event Type	Hours of Operation
10/3/2021	23:20	325.3	325.8	Testing	0.50
10/11/2021	0:06	325.8	326.3	Testing	0.50
10/17/2021	20:33	326.3	326.7	Testing	0.40
10/24/2021	22:22	326.7	326.8	Testing	0.10
10/27/2021	11:00	326.8	327.3	Testing	0.50
11/7/2021	21:21	327.3	327.8	Testing	0.50
11/14/2021	19:18	327.8	328.3	Testing	0.50
11/21/2021	22:45	328.3	328.8	Testing	0.50
11/28/2021	22:25	328.8	329.3	Testing	0.50
12/12/2021	23:10	329.3	329.8	Testing	0.50
12/19/2021	20:17	329.8	330.3	Testing	0.50
12/26/2021	21:22	330.3	330.8	Testing	0.50

Appendix D

Diesel Fuel Oil Purchase Records



Invoice

Page 1 of 1



SC Commercial, LLC, DBA SC Fuels
1800 West Katella Ave, Suite 400
P.O. Box 4159, Orange, CA 92863-4159

PLEASE REMIT ALL PAYMENTS TO:
P.O. BOX 14237
ORANGE, CA 92863-1237

Ph: (800) 659-5823 Credit Inquiries: (888) SCFUELS Ext.6017

INVOICE: 1837355-IN

INVOICE DATE: 3/29/2021

DUE DATE: 4/28/2021

SHIP DATE: 3/29/2021

SHIP VIA: 924

ORDER DATE: 3/24/2021

ORDER NUMBER: 1837355

CUSTOMER PO: MGS21780

TERMS: N30

SALEPERSON: Todd Cripps
714-938-5714

ACCT NO (Bill-to): 01-0001084

COLORADO ENERGY MANAGEMENT LLC
ATTN: ACCOUNTS PAYABLE
4963 S. SOTO STREET
VERNON, CA 90058
(323) 476-3622

ACCT NO (Ship-to) 01-0001084 1L

COLORADO ENERGY MGMT-VERNON
4963 SOTO STREET
VERNON, CA 90058

ITEM CODE	ITEM DESCRIPTION	QUANTITY ORDERED	QUANTITY DELIVERED	PACKAGE DESCRIPTION	EXTENDED QTY	UNIT PRICE	EXT PRICE
CH253090981D055	CH GST 2300 ISO 32 253090981	2	2.00	55 G DR	110.00	18.58000	2,043.80
		Whse: 101					
422D055	DYED CARB ULS DIESEL NON TAXABLE USE ONLY - PENALTY FOR TAXABLE USE 15 PPM OR LESS SULFUR - MAY CONTAIN UP TO 5% BIODIESEL	2	2.00	55 G DR	110.00	3.95000	434.50
		Whse: 101					
Federal Lust						0.00100	0.11
Federal Oil Spill						0.00214	0.24
CA - AB 32 - DSL						0.00828	0.91
						3.96142	435.76
DRUMDEPOSITC 001	DRUM DEPOSIT FEE	4	4.00	MISC CHRG	4.00	25.00000	100.00
		Whse: 101					
/FUELCHLUBE	FUEL SURCHARGE LUBES						9.92
/RCFLUBE	REG COMPLIANCE FEE LUBES						12.95
MSRTNDRMC001	RETURN DRUM	0	-4.00	MISC CHRG	4.00-	15.00000	60.00-
		Whse: 101					

Save time, pay online! View invoices, make payments and more.
Sign up for the Customer Portal today. Email: creditingquiries@scfuels.com or Call 888-SCFuels
Ext. 6017 or login to Customer Portal: <https://customerportal.scfuels.com>
24-hour Emergency Response Call CHEMTREC: 800-424-9300

Net Invoice: 2,542.43
Less Discount: 0.00
Freight: 0.00
Sales Tax: 256.52
Invoice Total: 2,798.95

- IN THE EVENT THAT THE ABOVE CHARGES ARE NOT PAID WHEN DUE, SC COMMERCIAL, LLC, DBA SC FUELS RESERVES THE RIGHT TO REFUSE FURTHER
- CHARGES TO THE ACCOUNT. A SERVICE CHARGE OF 1.5% PER MONTH(A.P.R. 18%) WILL APPLY TO ALL PAST DUE INVOICES.
- ERRORS IN PRICE, EXTENSION, AND ADDITION SUBJECT TO CORRECTION.
- It is the purchaser's responsibility to verify that all applicable taxes are being charged in accordance with federal and state laws.
- Prices shown on this invoice reflect discounts received for Payment by Cash, Check, or Electronic Funds Transfer (EFT). Payment by other means is subject to a 3% surcharge.



SC Commercial, LLC, DBA SC Fuels
1800 West Katella Ave., Suite 400
P.O. Box 14237, Orange, CA 92863-4159

Ph: (800) 659-5823 Credit Inquiries: (888) SCFUELS Ext. 6017

PLEASE REMIT ALL PAYMENTS TO:
P.O. BOX 14237
ORANGE, CA 92863-1237

SALES ORDER / DELIVERY TICKET

ORDER NUMBER: 1837355

DATE: 3/24/2021

TERMS: N30
SALES REP: Todd Cripps
PHONE: 714-938-5714

PO#: MGS21780

SHIP DATE: 3/29/2021

ROM:

SHIP VIA:

WHSE: 101

ACCT NO (Bill-to): 01-0001084

COLORADO ENERGY MANAGEMENT LLC
ATTN: ACCOUNTS PAYABLE
4963 S. SOTO STREET
VERNON, CA 90058
(323) 476-3622

ACCT NO (Ship-to) 01-0001084 1L

COLORADO ENERGY MGMT-VERNON
4963 SOTO STREET
VERNON, CA 90058
(323) 476-3632

HM	ITEM CODE	ITEM DESCRIPTION	QTY ORDERED	QTY DEL	PACKAGE DESC	EXTENDED QTY
	CH253090981D055	CH GST 2300 ISO 32 253090981	2.00	2	55 G DR	110.00 GALS
X	NA1993, DIESEL FUEL, 3 PG III / CARGO TANK					
	422D055	DYED CARB ULS DIESEL NON TAXABLE USE ONLY - PENALTY FOR TAXABLE USE 15 PPM OR LESS SULFUR - MAY CONTAIN UP TO 5% BIODIESEL	2.00	2	55 G DR	110.00 GALS
	DRUMDEPOSITC001	DRUM DEPOSIT FEE	4.00	4	MISC CHRG	4.00 EACH
	/FUELCHLUBE	FUEL SURCHARGE LUBES				
	/RCFLUBE	REG COMPLIANCE FEE LUBES				

Rec'd by

Date

3-29-21

Print Name

Driver's Signature

Received in INFOR
3/29/21
M. Gordon

ARRIVED DESTINATION 1032 AM DATE 3/29/21 PM
COMPLETED UNLOADING AM DATE 3/29/21 PM
DRUM CREDIT 4

TRUCK #	B/L #	FOR COMPANY USE ONLY
021		RT <input type="checkbox"/> TF <input type="checkbox"/> OP <input type="checkbox"/>
D.O.T. HAZARDOUS MATERIALS PLACARD PROVIDED		
BY SHIPPER <input type="checkbox"/> CARRIER <input type="checkbox"/>		
THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.		

Appendix E

Excess Emission Reports



Startup/Shutdown Excess Emissions Report

U1 CO Startup/Shutdown



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station
Generated: 01/06/2022 18:56 **Location:** Vernon, California
Tag Name: U1_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,047.65 Hours
Non-Operating Time: 160.35 Hours Report Time: 2,208.00 Hours

Unit Operation					
----------------	--	--	--	--	--

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 CO Startup/Shutdown



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station

Generated: 01/06/2022 18:56 **Location:** Vernon, California

Tag Name: U1_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,047.65 Hours
Non-Operating Time: 160.35 Hours Report Time: 2,208.00 Hours

--

No invalid events were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 NOx Startup/Shutdown

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station

Generated: 01/06/2022 19:10 Location: Vernon, California

Tag Name: U1_NOxRECLM_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,047.65 Hours
Non-Operating Time: 160.35 Hours Report Time: 2,208.00 Hours



Unit Operation					
----------------	--	--	--	--	--

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 NOx Startup/Shutdown



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station

Generated: 01/06/2022 19:10 **Location:** Vernon, California

Tag Name: U1_NOxRECLM_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,047.65 Hours
Non-Operating Time: 160.35 Hours **Report Time:** 2,208.00 Hours



No invalid events were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 VOC Startup/Shutdown



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station
Generated: 01/06/2022 19:12 **Location:** Vernon, California
Tag Name: U1_VOC_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,047.65 Hours
Non-Operating Time: 160.35 Hours Report Time: 2,208.00 Hours

Unit Operation					
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Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U1 VOC Startup/Shutdown



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station
Generated: 01/06/2022 19:12 **Location:** Vernon, California
Tag Name: U1_VOC_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,047.65 Hours
Non-Operating Time: 160.35 Hours Report Time: 2,208.00 Hours



No invalid events were found in the reporting period.

Excess Emission Report

Unit 1 - CO ppmvdc 1-hour during Normal Operation

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/26/2022 11:46 Location: Vernon, California



Tag Name: U1_CONormal_Ppmvdc_1H
Total Operating Time: 2,051.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 157.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,051.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %

Excess Emission Report

Unit 1 - NOx ppmvdc 1-hour during Normal Operation

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/06/2022 19:03 Location: Vernon, California



Tag Name: U1_NOxNormal_Ppmvdc_1H
Total Operating Time: 2,051.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 157.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,051.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %

Excess Emission Report

Unit 1 - VOC ppmvdc 1-hour during Normal Operation

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/06/2022 19:07 Location: Vernon, California



Tag Name: U1_VOCNormal_Ppmvdc_1H
Total Operating Time: 2,051.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 157.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,051.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %

Quad K Excess Emissions Report

U1 NOX 4-Hour Events

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/06/2022 19:09 Location: Vernon, California



Tag Name: U1_NOx4H_Ppmvdc_1H
Total Operating Time: 2,051.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 157.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,051.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %

Startup/Shutdown Event Report

U2 CO Startup/Shutdown Events



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station
Generated: 01/06/2022 18:58 **Location:** Vernon, California
Tag Name: U2_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,018.00 Hours
Non-Operating Time: 190.00 Hours Report Time: 2,208.00 Hours

Unit Operation					
Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Event Report

U2 CO Startup/Shutdown Events



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station

Generated: 01/06/2022 18:58 **Location:** Vernon, California

Tag Name: U2_CO_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,018.00 Hours
Non-Operating Time: 190.00 Hours **Report Time:** 2,208.00 Hours

--

No invalid events were found in the reporting period.

Startup/Shutdown Excess Emissions Report

U2 NOx Startup/Shutdown



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station

Generated: 01/06/2022 19:11 **Location:** Vernon, California

Tag Name: U2_NOxRECLM_LbPerHr_1M

SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,018.00 Hours

Non-Operating Time: 190.00 Hours Report Time: 2,208.00 Hours

Unit Operation

Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description
11/12/2021 12:57 11/12/2021 14:26 Warm Start - Gas	90	51.5 *	51.3		

Total Duration of Excess Emission	90 Minute(s)
Time of Excess Emission as a percentage of operating time	0.07 %
Time in compliance as percentage of operating time	99.93 %

Startup/Shutdown Excess Emissions Report

U2 NOx Startup/Shutdown

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station

Generated: 01/06/2022 19:11 Location: Vernon, California

Tag Name: U2_NOxRECLM_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,018.00 Hours
Non-Operating Time: 190.00 Hours Report Time: 2,208.00 Hours



--

No invalid events were found in the reporting period.

Startup/Shutdown Event Report

U2 VOC Startup/Shutdown Events



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station
Generated: 01/06/2022 19:12 **Location:** Vernon, California
Tag Name: U2_VOC_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,018.00 Hours
Non-Operating Time: 190.00 Hours Report Time: 2,208.00 Hours

Unit Operation					
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Event Period				Reason	Action
Begin/End	Duration in Minute(s)	Lb/Event	Limit	Code - Description	Code - Description

No excess emissions were found in the reporting period.

Startup/Shutdown Event Report

U2 VOC Startup/Shutdown Events



From: 10/01/2021 00:00 **To:** 12/31/2021 23:59 **Facility Name:** Malburg Generating Station

Generated: 01/06/2022 19:12 **Location:** Vernon, California

Tag Name: U2_VOC_LbPerHr_1M SI = SampleInvalid, * = Excess Emission

Total Operating Time: 2,018.00 Hours
Non-Operating Time: 190.00 Hours Report Time: 2,208.00 Hours

--

No invalid events were found in the reporting period.

Excess Emission Report

Unit 2 - CO ppmvdc 1-hour during Normal Operation

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/26/2022 11:47 Location: Vernon, California



Tag Name: U2_CONormal_Ppmvdc_1H
Total Operating Time: 2,024.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 184.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,024.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %

Excess Emission Report

Unit 2 - NOx ppmvdc 1-hour during Normal Operation

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/26/2022 11:44 Location: Vernon, California



Tag Name: U2_NOxNormal_Ppmvdc_1H
Total Operating Time: 2,024.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 184.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,024.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %

Excess Emission Report

Unit 2 - VOC ppmvdc 1-hour during Normal Operation

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/26/2022 11:45 Location: Vernon, California



Tag Name: U2_VOCNormal_Ppmvdc_1H
Total Operating Time: 2,024.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 184.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,024.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %

Quad K Excess Emissions Report

U2 NOX 4-Hour Events

From: 10/01/2021 00:00 To: 12/31/2021 23:59 Facility Name: Malburg Generating Station
Generated: 01/06/2022 19:09 Location: Vernon, California



Tag Name: U2_NOx4H_Ppmvdc_1H
Total Operating Time: 2,024.00 Hour(s) No Exclusions Allowed
Non-Operating Time: 184.00 Hour(s) Report Time: 2,208.00 Hour(s)

No incidents have been reported for this reporting period. Data is 100% in compliance.

Total Operating Time:	2,024.00 Hour(s)
Total Duration (Online only):	0.00 Hour(s)
Time in exceedance as a percentage of operating time:	0.00 %
Time in compliance as a percentage of operating time:	100.00 %



MALBURG GENERATING STATION

4963 Soto Street
Vernon, CA 90058
Telephone: (323) 476-3610
Fax: (323) 476-3640

22 November 2021

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
ATTN: Christian Fielding

Subject: 500-N Report
Facility ID #: 155474
Source: Malburg Generating Station

On behalf of the owner of the Malburg Generating Station, Bicent (California) Malburg LLC, Heorot Power Management is submitting this 500-N report for the November 12, 2021, deviation with excess emissions.

Please don't hesitate to contact me at (303) 607-5590 or kmccormack@heorotpower.com if you have any questions or need additional information.

Sincerely,

Kyle McCormack
Senior Manager of Environmental



South Coast Air Quality Management District

Form 500-N**Title V - Deviations, Emergencies & Breakdowns**

*This written report is in addition to requirements to verbally report certain types of incidents. Verbal reports may be made by calling AQMD at 1-800-288-7664 (1-800-CUT-SMOG) or AQMD enforcement personnel.

Mail To:
SCAQMD- Compliance & Enforcement
P.O. Box 4941
Diamond Bar, CA 91765-0941
Tel: (909) 396-3385
www.aqmd.gov

Section I - Operator Information

1. Facility Name (Business Name of Operator That Appears On Permit): <u>Bicent (California) Malburg, LLC</u>	2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): <u>155474</u>
3. Address: <u>4963 S. Soto Street</u> (where incident occurred) Street Address <u>Vernon</u> <u>CA</u> <u>90058</u> City State Zip	
4. Mailing Address: _____ (if different from Item 3) Street Address _____ City State Zip	
5. Provide the name, title, and phone number of the person to contact for further information: <u>Kyle McCormack</u> <u>Sr. Manager of Environmental</u> <u>(323) 775-3873</u> Name Title Phone #	

Section II - Reporting of Breakdowns, Deviations, and Emergencies**1. This written notification is to report a(n):**

Type of Incident	Verbal Report Due*	Written Report Due
a. <input type="checkbox"/> Emergency under Rule 3002(g)	Within 1 hour of discovery	Within 2 working days from when the emission limit was exceeded.
b. <input type="checkbox"/> Breakdown under: <input type="checkbox"/> Rule 430 (Non-RECLAIM) <input type="checkbox"/> Rule 2004 (RECLAIM) <input type="checkbox"/> Rule 218 (Non-RECLAIM) [See Rule 218(f)(3)]	For Rules 430 & 2004 - Within 1 hour of discovery. For Rule 218 - Within 24 hours or next business day for failure/shutdown exceeding 24 hours	For Rules 430 & 2004 - Within 7 calendar days after breakdown is corrected, but no later than 30 days from start of the breakdown, unless a written extension is granted. For Rule 218 - With required semi-annual reports.
c. <input checked="" type="checkbox"/> Deviation with excess emissions [See Title V Permit, Section K, Condition No. 22B]	Within 72 hours of discovery of the deviation or shorter reporting period if required by an applicable State or Federal Regulation.	Within 14 days of discovery of the deviation.
d. <input type="checkbox"/> Other Deviation [See Title V Permit, Section K, Condition Nos. 22D & 23]	None	With required semi-annual monitoring reports.

2. The incident was first discovered by: <u>Thomas Barnhart</u> on <u>11/12/2021</u> <u>06:00</u> <input type="radio"/> AM <input checked="" type="radio"/> PM Name Date Time
3. The incident was first reported by: <u>Operator #5</u> on <u>11/15/2021</u> <u>10:01</u> <input checked="" type="radio"/> AM <input type="radio"/> PM Name of AQMD Staff Person Date Time
a. <input checked="" type="radio"/> Via Phone
b. <input type="radio"/> In Person
Notification Number (Required): <u>677596</u>
4. When did the incident actually occur? <u>11/12/2021</u> <u>12:57</u> <input type="radio"/> AM <input checked="" type="radio"/> PM Date Time

AQMD USE ONLY	Received By:		Assigned By:		Inspector:	
	Date/Time Received:		Date/Time Assigned:		Date/Time Received Assignment:	
	Date Delivered To Team:		Date Reviewed Inspector Report:		Date Inspected Facility:	
	Team:	Sector:	Breakdown/Deviation Notification No.		Date Completed Report:	
	Recommended Action:		Cancel Notification	Grant Relief	Issue NOV No. _____	Other: _____
	Final Action:		Cancel Notification	Grant Relief	Issue NOV No. _____	Other: _____

5. Has the incident stopped? a. ☒ Yes, on: 11/12/2021 02:27 ☐ AM ☒ PM b. ☐ No
Date Time

6. What was the total duration of the incident? 0 01
Days Hours

7. For equipment with an operating cycle, as defined in Rule 430 (b)(3)(A), when was the end of the operating cycle during which the incident occurred? _____
Date Time ☐ AM ☐ PM

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary.
See Attachment A

9. The incident may have resulted in a:
a. ☒ Violation of Permit Condition(s): A99.6 NOX Startup Limit 51.3
b. ☐ Violation of AQMD Rule(s): _____

10. What was the probable cause of the incident? Attach additional pages as necessary.
See Attachment A

11. Did the incident result in excess emissions? ☐ No ☒ Yes (Complete the following and attach calculations.)
☐ VOC _____ lbs ☒ NOx 51.500 lbs ☐ SOx _____ lbs ☐ H2S _____ lbs
☐ CO _____ lbs ☐ PM _____ lbs ☐ Other: _____ lbs _____ pollutant

12. For RECLAIM facilities Subject to Rule 2004 (i)(3) ONLY: If excess emissions of NOx and/or SOx were reported in Item 11, do you want these emissions to be counted when determining compliance with your annual allocations?
a. ☒ Yes, for: ☒ NOx ☐ SOx b. ☐ No, for: ☐ NOx ☐ SOx
If box 12(b) above is checked, include all information specified in Rule 2004(i)(3)(B) and (C), as applicable.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.
See Attachment A

14. Was the facility operating properly prior to the incident?
a. ☒ Yes b. ☐ No, because: _____

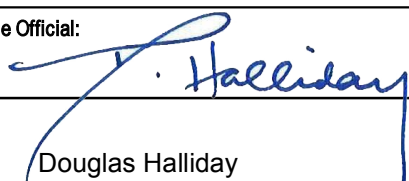
15. Did the incident result from operator error, neglect or improper operation or maintenance procedures?
a. ☐ Yes b. ☒ No, because: See Attachment A

16. Has the facility returned to compliance?
a. ☐ No, because: _____
b. ☒ Yes (Attach evidence such as emissions calculations, contemporaneous operating logs or other credible evidence.)

Section III - Certification Statement

I certify under penalty of law that based on information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.

For Title V Facilities ONLY: ☒ I also certify under penalty of law that that I am the responsible official for this facility as defined in AQMD Regulation XXX.

1. Signature of Responsible Official: 	2. Title of Responsible Official: Chief Operating Officer
3. Print Name: Douglas Halliday	4. Date: 11/22/2021
5. Phone #: (410) 770-9500	6. Fax #:
7. Address of Responsible Official: 9 Federal Street Easton MD 21601 Street # City State Zip	

- 8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary.**

On the afternoon of November 12, at 14:27, CTG Unit 2 (Device ID D36) experienced a CO lbs. excess emission during a non-cold startup event. The non-cold startup began at 12:57, which followed a 17.5-hour offline period. Normal operations resumed at 14:28. The NOx startup value of 51.5 lbs. was in excess of the limitation of 51.3 lbs. Permit Condition A99.6

- 10. What was the probable cause of the incident? Attach additional pages as necessary.**

The Steam Turbine Generator (STG) had been offline for 37 hours prior to this start, there was an attempted restart the previous day in which the STG experienced a forced outage preventing the successful start of unit 2 on 11/11/2021. The 37-hour offline time, combined with cool ambient temperatures the previous night had allowed the process too cool to temperatures typical of a "cold-start". During the start-up sequence the gas turbine load was reduced and held at a lower than typical load of 10mw (elevated NOx) for a longer than typical "non-cold start" duration to facilitate the cold start-up of the Steam Turbine.

- 13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.**

A procedural change has been implemented. The change will require that in the event of a start-up under similar conditions, the Gas Turbine load will be held at 5 MW for 15 minutes, currently the unit is held at 5 mw for 20 minutes to facilitate HRSG heat soaking before increasing to 12 mw (lower loads have higher raw NOx). Also, notes have been added to the procedure to warn against reducing load below 12 MW during the start sequence.

Appendix F

MGS RECLAIM Annual Emission Allocation Information





FACILITY PERMIT TO OPERATE BICENT (CALIFORNIA) MALBURG LLC

SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

The annual allocation of NO_x RECLAIM Trading Credits (RTCs) for this facility is calculated pursuant to Rule 2002. Total NO_x emission shall not exceed such annual allocations unless the operator obtains RTCs corresponding to the facility's increased emissions in compliance with Rules 2005 and 2007.

The level of Starting Allocation plus Non-Tradable Credits used to determine compliance with Rule 2005(c)(4) and applicability of Rule 2005(e) - Trading Zone Restrictions is listed on the last page of this Section.

The following table lists the annual allocations that were issued to this facility and the amounts of RTCs held by this facility on the day of printing this Section.

RECLAIM POLLUTANT ANNUAL ALLOCATION (POUNDS)

Year Begin End (month/year)	Zone	NO _x RTC Initially Allocated	NO _x RTC ¹ Holding as of 08/12/2021 (pounds)	Non-Tradable ² Non-Usable RTCs (pounds)
7/2018 6/2019	Coastal	28480	13236	940
1/2019 12/2019	Coastal	0	4651	940
7/2019 6/2020	Coastal	28480	4728	940
1/2020 12/2020	Coastal	0	21279	1854
7/2020 6/2021	Coastal	28480	33527	1854
1/2021 12/2021	Coastal	0	35409	1881
7/2021 6/2022	Coastal	28480	19397	1881
1/2022 12/2022	Coastal	0	15663	3735
7/2022 6/2023	Coastal	28480	15663	3734
1/2023 12/2023	Coastal	0	15663	0
7/2023 6/2024	Coastal	28480	15663	0
1/2024 12/2024	Coastal	0	15663	0
7/2024 6/2025	Coastal	28480	15663	0
1/2025 12/2025	Coastal	0	15663	0
7/2025 6/2026	Coastal	28480	15663	0
1/2026 12/2026	Coastal	0	15663	0
7/2026 6/2027	Coastal	28480	15663	0

Footnotes:

1. This number may change due to pending trades, emissions reported under Quarterly Certification of Emissions Report (QCER) and Annual Permit Emission Program (APEP) Report required pursuant to Rule 2004, or deductions made pursuant to Rule 2010(b). The most recent total RTC information can be obtained from the District's RTC Listing.
2. The use of such credits is subject to restrictions set forth in paragraph (f)(1) of Rule 2002.



FACILITY PERMIT TO OPERATE BICENT (CALIFORNIA) MALBURG LLC

SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

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The following table lists the annual allocations that were issued to this facility and the amounts of RTCs held by this facility on the day of printing this Section.

RECLAIM POLLUTANT ANNUAL ALLOCATION (POUNDS)

Year Begin End (month/year)	Zone	NO _x RTC Initially Allocated	NO _x RTC ¹ Holding as of 08/12/2021 (pounds)	Non-Tradable ² Non-Usable RTCs (pounds)
1/2027 12/2027	Coastal	0	15663	0
7/2027 6/2028	Coastal	28480	15663	0
1/2028 12/2028	Coastal	0	15663	0
7/2028 6/2029	Coastal	28480	15663	0
1/2029 12/2029	Coastal	0	15663	0
7/2029 6/2030	Coastal	28480	15663	0
1/2030 12/2030	Coastal	0	15663	0
7/2030 6/2031	Coastal	28480	15663	0
1/2031 12/2031	Coastal	0	15663	0
7/2031 6/2032	Coastal	28480	15663	0
1/2032 12/2032	Coastal	0	15663	0
7/2032 6/2033	Coastal	28480	15663	0
1/2033 12/2033	Coastal	0	15663	0
7/2033 6/2034	Coastal	28480	15663	0
1/2034 12/2034	Coastal	0	15663	0
7/2034 6/2035	Coastal	28480	15663	0
1/2035 12/2035	Coastal	0	15663	0

Footnotes:

1. This number may change due to pending trades, emissions reported under Quarterly Certification of Emissions Report (QCER) and Annual Permit Emission Program (APEP) Report required pursuant to Rule 2004, or deductions made pursuant to Rule 2010(b). The most recent total RTC information can be obtained from the District's RTC Listing.
2. The use of such credits is subject to restrictions set forth in paragraph (f)(1) of Rule 2002.



FACILITY PERMIT TO OPERATE BICENT (CALIFORNIA) MALBURG LLC

SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

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RECLAIM POLLUTANT ANNUAL ALLOCATION (POUNDS)

Year Begin End (month/year)	Zone	NO _x RTC Initially Allocated	NO _x RTC ¹ Holding as of 08/12/2021 (pounds)	Non-Tradable ² Non-Usable RTCs (pounds)
7/2035 6/2036	Coastal	28480	15663	0
1/2036 12/2036	Coastal	0	15663	0

Footnotes:

1. This number may change due to pending trades, emissions reported under Quarterly Certification of Emissions Report (QCER) and Annual Permit Emission Program (APEP) Report required pursuant to Rule 2004, or deductions made pursuant to Rule 2010(b). The most recent total RTC information can be obtained from the District's RTC Listing.
2. The use of such credits is subject to restrictions set forth in paragraph (f)(1) of Rule 2002.