

# ***CAL FIRE***



**CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION**  
**Amador-El Dorado Unit**  
2840 Mount Danaher Road  
Camino, CA 95709

## **INVESTIGATION REPORT**

**CASE NUMBER:** 15CAAEU024918  
**CASE NAME:** Butte Incident  
**DATE:** September 9, 2015  
**INCIDENT TYPE:** Wildland Fire  
**INCIDENT INVESTIGATOR:** Gianni Muschetto

1 **1 - VIOLATION(S):**

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3 **Public Resources Code 4421:** A person shall not set fire or cause fire to be set to any  
4 forest, brush, or other flammable material which is on any land that is not his own, or  
5 under his legal control, without the permission of the owner, lessee, or agent of the  
6 owner or lessee of the land.

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8 **Public Resources Code 4435:** If any fire originates from the operation or use of any  
9 engine, machine, barbecue, incinerator, railroad rolling stock, chimney, or any other  
10 device which may kindle a fire, the occurrence of the fire is prima facie evidence of  
11 negligence in the maintenance, operation, or use of such engine, machine, barbecue,  
12 incinerator, railroad rolling stock, chimney, or other device. If such fire escapes from the  
13 place where it originated and it can be determined which person's negligence caused  
14 such fire, such person is guilty of a misdemeanor.

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16 **Health and Safety Code 13007:** Any person who personally or through another willfully,  
17 negligently, or in violation of law, sets fire to, allows fire to be set to, or allows a fire  
18 kindled or attended by him to escape to, the property of another, whether privately or  
19 publicly owned, is liable to the owner of such property for any damages to the property  
20 caused by the fire.

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22 **Health and Safety Code 13009:** (a) Any person (1) who negligently, or in violation of  
23 the law, sets a fire, allows a fire to be set, or allows a fire kindled or attended by him or  
24 her to escape onto any public or private property, (2) other than a mortgagee, who,  
25 being in actual possession of a structure, fails or refuses to correct, within the time  
26 allotted for correction, despite having the right to do so, a fire hazard prohibited by law,  
27 for which a public agency properly has issued a notice of violation respecting the hazard,  
28 or (3) including a mortgagee, who, having an obligation under other provisions of law to  
29 correct a fire hazard prohibited by law, for which a public agency has properly issued a  
30 notice of violation respecting the hazard, fails or refuses to correct the hazard within the  
31 time allotted for correction, despite having the right to do so, is liable for the fire

1 suppression costs incurred in fighting the fire and for the cost of providing rescue or  
2 emergency medical services, and those costs shall be a charge against that person. The  
3 charge shall constitute a debt of that person, and is collectible by the person, or by the  
4 federal, state, county, public, or private agency, incurring those costs in the same  
5 manner as in the case of an obligation under a contract, expressed or implied.

6 (b) Public agencies participating in fire suppression, rescue, or emergency medical  
7 services as set forth in subdivision (a), may designate one or more of the participating  
8 agencies to bring an action to recover costs incurred by all of the participating agencies.  
9 An agency designated by the other participating agencies to bring an action pursuant to  
10 this section shall declare that authorization and its basis in the complaint, and shall  
11 itemize in the complaint the total amounts claimed under this section by each  
12 represented agency.

13 (c) Any costs incurred by the Department of Forestry and Fire  
14 Protection in suppressing any wildland fire originating or spreading from a prescribed  
15 burning operation conducted by the department pursuant to a contract entered into  
16 pursuant to Article 2 (commencing with Section 4475) of Chapter 7 of Part 2 of Division  
17 4 of the Public Resources Code shall not be collectible from any party to the contract,  
18 including any private consultant or contractor who entered into an agreement with that  
19 party pursuant to subdivision (d) of Section 4475.5 of the Public Resources Code, as  
20 provided in subdivision (a), to the extent that those costs were not incurred as a result of  
21 a violation of any provision of the contract.

22 (d) This section applies to all areas of the state, regardless of whether primarily  
23 wildlands, sparsely developed, or urban.

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1 **2 - SUMMARY:**

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3 On Wednesday, September 9, 2015, at approximately 2:26 PM, the Camino Emergency  
4 Command Center (ECC) dispatched CAL FIRE and cooperating agency units to a  
5 reported wildland fire near Butte Mountain Road and Charamuga Ranch Road east of  
6 the community of Jackson in Amador County (See Attachment #1). Fire units contained  
7 the fire on October 1, 2015. The fire burned 70,868 acres and damaged or destroyed  
8 approximately 965 structures (See Attachment #2). The fire also resulted in 2 fatalities  
9 and 1 injury.

10  
11 During the origin and cause investigation I, Gianni MUSCHETTO, determined the fire  
12 was caused when a Gray Pine (Evidence Item #1) contacted a PG&E powerline  
13 conductor which ignited portions of the tree. Burning embers from this contact with the  
14 conductor dropped into the fine dead fuels below the conductor, igniting the wildland fire  
15 which burned uncontrolled onto numerous properties not owned or controlled by PG&E  
16 in violation of PRC 4421.

17 During the investigation I determined PG&E and/or its sub-contractors ACRT and Trees,  
18 Inc. conducted powerline vegetation management inspections and maintenance in 2014-  
19 2015 within the area of origin. They identified (October 2014) and removed (January  
20 2015) two Gray Pines on the outer edge of the pine stand on the north side of the  
21 powerline conductor identified as being within the General Origin Area (GOA) of the fire.  
22 The removal of these two pines exposed the interior trees, including the Gray Pine  
23 (Evidence Item #1) that were previously captured and developed within the closed stand  
24 provided by those removed pines. These now exposed trees were left open to the  
25 south, towards the path of the sun and the powerlines. It is known, when a stand is  
26 altered and captured interior trees are exposed to open spaces, they are prone to  
27 failure. PG&E and/or its sub-contractors ACRT and Trees, Inc. failed to identify this  
28 during their 2014 inspection when the pine trees were identified for removal, or in  
29 January 2015 when the trees were removed, or during any subsequent  
30 inspections/maintenance conducted on that section of powerlines and poles. Failing to

1 identify the potential hazard of leaving weaker, inherently unstable trees on the edge of  
2 the stand, without conducting maintenance on them, ultimately led to the failure of the  
3 Gray Pine (Evidence Item #1) which contacted the powerline conductor operated by  
4 PG&E and ignited a wildland fire.

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1 **3 - SUBJECT(S):**

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3 Pacific Gas & Electric Corporation

4 77 Beale Street 24<sup>th</sup> Floor

5 San Francisco, CA 94105

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7 ACRT Inc.

8 CT Corporation

9 818 West Seventh Street, Suite 930

10 Los Angeles, CA 90017

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12 Trees Inc.

13 CT Corporation

14 818 West Seventh Street, Suite 930

15 Los Angeles, CA 90017

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1 **4 - VICTIM(S):**

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3 The Butte Incident burned approximately 70,868 acres within Amador and Calaveras  
4 Counties. The fire damaged and/or destroyed approximately 965 structures, resulted in  
5 two fatalities and one injury. See Attachment #2 for the initial Butte Incident Damage  
6 Inspection Summary. This summary does not account for all damage to infrastructure,  
7 mobile property, miscellaneous property improvements, natural vegetation, livestock,  
8 wildlife or other misc. damage.

9

10 **WITNESSES:**

11

12 OLIVARRIA, Mike  
13 2840 Mt. Danaher Road  
14 Camino, CA 95709  
15 (530) 644-2345

16 CAL FIRE Battalion Chief

17

18 CLINKENBEARD, Jarrod  
19 2840 Mt. Danaher Road  
20 Camino, CA 95709  
21 (530) 644-2345

22 CAL FIRE Captain

23

24 JACKSON, Garrett and GAWRONSKI, Jeff  
25 1300 "U" Street  
26 P.O. Box 944246  
27 Sacramento, CA 94244-2460  
28 (916) 445-4276

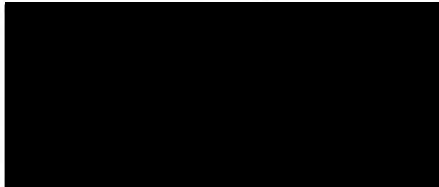
29 CAL FIRE Transportation Surveyors

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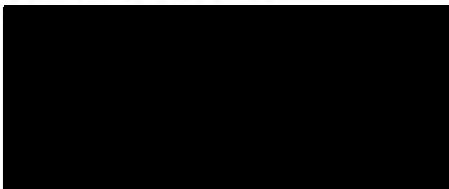
1 PODESTA, Louie, Jr.



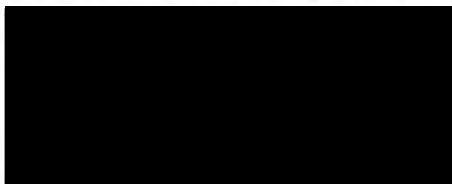
6 PODESTA, Louie, Sr.



11 AFFONSO, Jamie



16 CAUFIELD, Jack and Diane



21 MAHONEY, Michael  
22 Independent Consultant  
23 32759 Greene Drive  
24 Springville, CA 93265  
25 (949) 283-6439

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27  
28  
29  
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- 1 [REDACTED]
- 2 Pacific Gas and Electric Corporation
- 3 12626 Jackson Gate Road
- 4 Jackson, CA 95642
- 5 [REDACTED]
- 6
- 7 [REDACTED]
- 8 ACRT Inc.
- 9 4636 Missouri Flat Road
- 10 Placerville, CA 95667
- 11 [REDACTED]
- 12
- 13 [REDACTED]
- 14 Trees, Inc.
- 15 1557 Starr Drive, Ste. C
- 16 Yuba City, CA 95993
- 17 [REDACTED]
- 18
- 19 [REDACTED]
- 20 Weger Fire Investigations, Inc.
- 21 2003 E. Parkview Ct.
- 22 Visalia, CA
- 23 [REDACTED]
- 24
- 25 CARLSON, Alan
- 26 Alan Carlson & Associates LLC
- 27 13989 Kelsey Drive
- 28 Chico, CA 95973

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1 **5 - EVIDENCE:**

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3 E-1 – Gray Pine

4 E-2 – Stump of Gray Pine

5 E-3 – Powerline Conductor

6 E-4 - Photographs

7 E-5 – Photographs received from CAL FIRE Air Attack 440

8 E-6 – Images from PG&E Red Corral Camera

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10 See Attachment #9 for the LE-75e Evidence Log

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1 **6 – CONDITION(S):**

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3 **Weather:**

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5 At scene weather conditions on September 9, 2015, at 4:50 PM:

- 6 • Temperature: 98° F
- 7 • Relative Humidity: 8%
- 8 • Wind: W to NW at 4 MPH
- 9 • Weather was taken approximately 400 feet from the SOA.

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11 Mount Zion RAWs on September 9, 2015, at 2:56 PM:

- 12 • Temperature: 99° F
- 13 • Relative Humidity: 10%
- 14 • Wind: W to NW at 5 MPH
- 15 • Distance from RAWs to SOA approximately 4.2 miles.

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17 Campo Seco RAWs on September 9, 2015, at 2:59 PM:

- 18 • Temperature: 106° F
- 19 • Relative Humidity: 8%
- 20 • Wind: NW at 5 MPH
- 21 • Distance from RAWs to SOA approximately 12.2 miles.

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1 **7 – EQUIPMENT:**

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3 Pacific Gas & Electric Corporation Electra 1101 Circuit (Martell 1102) powerline facilities.  
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1 **8 - PROPERTY:**

2 The Butte Incident originated on the following property:

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4 APN: [REDACTED]

5 Address: Across from 17501 Butte Mountain Road, Jackson, CA 95642

6 Owner: Kirk Chester A & Dorothy L 1990 Trust

7 C/O: Jack and Diane CAUFIELD – 1021 S. Pleasant Ave, Lodi, CA 95240

8 County: Amador

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10 Latitude: 38 20.339

11 Longitude: -120 41.704

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13 The fire ultimately burned approximately 70,868 acres within Amador and Calaveras  
14 counties

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1 **9 - NARRATIVE:**

2 On Wednesday, September 9, 2015, at approximately 2:26 PM, the Camino Emergency  
3 Command Center (ECC) dispatched CAL FIRE and cooperating agency units to a  
4 reported wildland fire near Butte Mountain Road and Charamuga Ranch Road east of  
5 the community of Jackson in Amador County (See Attachment #1). Fire units contained  
6 the fire on October 1, 2015. The fire burned 70,868 acres and damaged or destroyed  
7 approximately 965 structures (See Attachment #2). The fire also resulted in 2 fatalities  
8 and 1 injury.

9 I, Gianni MUSCHETTO, responded at the time of dispatch to investigate the fire. While  
10 responding, units were advised that powerlines were possibly down at the fire. While  
11 responding, I observed the smoke column from the fire and could see it was blowing in a  
12 southeast direction due to a north/northwest wind. The smoke was light gray in color  
13 when first observed and continually got darker until it was very dark gray in color. I  
14 arrived at scene at approximately 2:40 PM and saw someone in a backhoe tractor  
15 driving from 17501 Butte Mountain Road through a field towards the fire. I drove south  
16 on Charamuga Ranch Road and could see the fire was approximately 2 to 3 acres in  
17 size, burning in oak, pine and brush vegetation. The fire was advancing to the  
18 southeast towards residences and structures at the end of Charamuga Ranch Road. As  
19 I travelled south on the road I came up to powerlines that ran east to west across the  
20 road. The powerlines extended west across a field and into the area of the fire. From  
21 the road I did not see any powerlines down but I lost sight of the lines as they extended  
22 into the smoke of the fire and heavier oak and pine vegetation. As I continued south to  
23 the end of Charamuga Ranch Road I observed the head of the fire had not reached the  
24 residence at the end of the road but there were numerous spot fires igniting in the  
25 pasture and around the structures surrounding the residence. Fire units began to arrive  
26 and suppress the spot fires and make access to the main fire. I made contact with CAL  
27 FIRE Battalion Chief Mike OLIVARRIA and Fire Captain Jarrod CLINKENBEARD at the  
28 end of Charamuga Ranch Road. We immediately observed additional spot fires  
29 southeast of the residence we were at. These fires were approximately ¼ acre in size  
30 and were located below the smoke column of the main fire which was blowing southeast

1 over the Mokelumne river canyon. The spot fires were burning in the steep river  
2 canyon. OLIVARRIA asked if I could help locate any access points into the steep  
3 canyon to get to the spot fires. I assisted fire suppression units and returned to  
4 Charamuga Ranch Road to conduct the origin and cause investigation of the fire at  
5 approximately 3:30 PM. I made access to the area where I initially observed the fire  
6 burning when I arrived at scene. The fires progression had been stopped in that area  
7 and crews were finishing cutting line and mopping up the perimeter of that area of the  
8 fire. I walked west from Charamuga Ranch Road to the eastern edge of the fire. From  
9 the edge of the fire I could see powerlines ran east to west through the northern portion  
10 of the fire. The powerlines appeared intact and fire units never reported finding  
11 powerlines down in the area. I also saw the backhoe tractor I observed when I first  
12 arrived was parked near the northeast end of the fire. I did not see the operator around  
13 but could see where he attempted to scrape fire breaks on the east end of the fire. I  
14 walked south along the fire line and began observing burn pattern indicators and looking  
15 for evidence. As I walked around the perimeter and then back I observed burn pattern  
16 indicators such as angle of char, grass stem fall, vegetation freeze and white ash  
17 deposits. These macro-scale indicators showed the fires progression as advancing  
18 south through the brush and trees south of the powerlines, backing north through the  
19 pine and oak trees north of the powerlines and the flanks of the fire burning laterally to  
20 the east and west. These burn pattern indicators were consistent with the fire behavior I  
21 observed while responding to the incident and when I arrived at scene. During my walk  
22 around I also observed the remains of a partially burned pile of what appeared to be tree  
23 limbs located north of the powerlines along the northeast edge of the fire perimeter.  
24 Based on my observations of the burn pattern indicators and fire behavior I determined  
25 the GOA of the fire was an area approximately 75 feet by 75 feet in size located  
26 between the stand of trees on the north side of the powerlines and the stand of trees  
27 and brush on the south side of the powerlines and approximately fifty feet east of the  
28 utility pole with a blue number "7" painted on it. The burned remains of the pile of tree  
29 limbs I observed along the northeast edge of the fire were outside of the GOA. As I  
30 walked around the perimeter of the GOA I observed burn pattern indicators and

1 continued to look for evidence. As I walked around the perimeter and then back again in  
2 the opposite direction I observed burn pattern indicators along the south and southwest  
3 edge of the GOA showing the fire advanced in that direction. Along the western  
4 perimeter of the GOA I observed grass stem fall, sooting and protection indicators  
5 showing the fire moving laterally towards the utility pole with the blue number "7" painted  
6 on it. On the north and northeast perimeter of the GOA I observed angle of char,  
7 protection, sooting and degree of damage indicators showing the fire backed north and  
8 northeast through a stand of pine and oak trees. On the eastern perimeter of the GOA I  
9 observed grass stem fall, sooting, protection and degree of damage indicators showing  
10 the fire moving laterally to the east below the powerlines and to the southeast through  
11 trees on the south side of the powerlines and into the predominantly grass fuels. From  
12 the perimeter of the GOA I observed the overhead powerlines generally ran east to west  
13 over the GOA. The powerlines consisted of three separate conductors that spanned  
14 over the top of the GOA between the utility pole with a blue number "7" painted on it to  
15 the west and a utility pole with a metal PG&E tag #099651 on it to the east. Within the  
16 GOA I observed several burning tree stumps and logs on the north side of the  
17 powerlines adjacent to the stand of pine and oak trees. I also observed a pine tree that  
18 had fallen over and was lying below the powerlines. The pine tree appeared to be  
19 mostly unburned and was intact. The base of the tree appeared to still be in the ground  
20 and the stem of the tree was bent towards the powerlines. The lower stem (trunk) of the  
21 tree was off of the ground with only approximately the top 1/3 of the tree in contact with  
22 the ground below the powerlines.

23 I walked around to the south side of the GOA and entered from the advancing run of the  
24 fire. I walked in an S-shape pattern across (east/west) the advancing run of the fire until  
25 I identified a transition to lateral progression. I identified advancing indicators with red  
26 colored flags and lateral indicators with yellow colored flags. As I moved north I reached  
27 the top of the pine tree that had fallen over and was lying below the powerlines. The top  
28 portion of the tree appeared to be unburned except for an approximate one foot section  
29 of the stem that was burned and appeared to have sap bubbles on the stem. There  
30 were also two small branches that appeared to have been burned through in the same



1 area. The rest of the top 1/3 of the tree that was in contact with the ground appeared  
2 unburned. There were still green needles on the branches. I marked the burned portion  
3 of the tree with a white colored flag as potential evidence. This burned section of the  
4 stem appeared to have been exposed to a significant amount of heat which was not  
5 consistent with the condition of the rest of the tree that was in contact with the ground. It  
6 appeared this section had come into contact with one of the overhead powerline  
7 conductors prior to falling to the ground. I did not observe anything on the ground that  
8 would have caused the tree to burn only in that small section of the tree stem that was  
9 lying on the ground. As I observed the rest of the tree, I saw the lower 1/3 of the tree  
10 stem had sustained burn damage consistent with burn damage I observed on adjacent  
11 trees. It appeared that the top portion of the tree was still in contact with the conductor  
12 when the wildland fire burned the surface fuels causing burn damage to the base of the  
13 tree and not the upper portion of the tree. I continued observing burn pattern indicators  
14 and determined the Specific Origin Area (SOA) was an area approximately 10 feet wide  
15 by 25 feet long located north of the center conductor of the powerlines. I conducted an  
16 S-shape grid search of the SOA. I searched each lane visually and ran a magnet over  
17 the area as I progressed. I continued until backing indicators were identified at the  
18 stand of pine trees north of the powerlines. No evidence of an ignition source was found  
19 other than the overhead powerlines and fallen pine tree that appeared to have contacted  
20 a conductor. I observed each conductor of the powerlines over the SOA with  
21 binoculars. There appeared to be discoloration on the northern most conductor over the  
22 area where the pine tree was lying below the powerlines. I did not observe any  
23 discoloration or damage to the other two conductors. (See Sketch, Attachment #3).  
24 At approximately 4:50 PM I took the weather at scene. I took the weather from outside  
25 of the fire perimeter in the area east of the fire (See RAWs Data, Attachment #4). After  
26 taking the weather I began taking digital photographs of the scene (See Attachment #5).  
27 CAL FIRE Captain Nate BARCKLAY arrived at scene and walked to my location.  
28 BARCKLAY assisted me with taking measurements within the GOA. We measured the  
29 length of the tree that had fallen and was lying below the powerlines. We measured  
30 along the stem of the tree from the ground at the base of the tree to the top of the tree

1 which was lying on the ground. The tree measured at approximately 44' 2" in height.  
2 We measured along the ground from the base of the tree to the northern most powerline  
3 conductor where I observed discoloration on the conductor. The distance measured at  
4 approximately 23' 6". We also took a measurement from that location under the  
5 conductor to the utility pole with the blue #7 painted on it. The distance measured at  
6 approximately 105' 3".

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8 At approximately 5:30 PM two men walked over to my location from the direction of a  
9 residence along Butte Mountain Road. I recognized one of the men as Louie PODESTA  
10 Jr. who works for the Jackson City Fire Department. I made contact with PODESTA Jr.  
11 who introduced me to his father, Louie PODESTA Sr. PODESTA Jr. told me he  
12 reported the fire and had driven the backhoe tractor over to try and put line around the  
13 fire. At approximately 5:30 PM I interviewed PODESTA Jr. separate from his father  
14 (See Attachment #6). PODESTA Jr. told me the following in summary:

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16 Louie PODESTA Jr. told me his parents lease the property where the fire started. He  
17 told me he was at the barn across from 17501 Butte Mountain Road cleaning it up for a  
18 wedding. He told me he saw smoke over the hill in the trees in the area where the  
19 powerlines run through the trees. He looked at his cell phone log and told me he called  
20 the Jackson City Fire Station at 2:21 PM to report the fire, then immediately called the  
21 CAL FIRE Camino ECC to report the fire. PODESTA Jr. told me he reported that  
22 powerlines were possibly down because the fire was in the area of the powerlines and  
23 he didn't know of anything else in the area that could have caused the fire. He told me  
24 prior to seeing the fire he did not hear or see anything in the direction of the fire. He told  
25 me the gate to access the property was next to where he was working and nobody went  
26 into the field. PODESTA Jr. told me he also called the responding CAL FIRE Battalion  
27 Chief and told him the fire was near Charamuga Ranch Road. He then called his mom  
28 who was home next door and told her about the fire. PODESTA Jr. told me he got on  
29 the backhoe tractor at the barn and drove through the field to the fire. He told me when  
30 he got there the fire was a couple of acres in size. He pointed to the stand of pine and

1 oak trees on the north side of the powerlines and told me the fire was creeping through  
2 the trees. He told me the wind was pushing the main fire south and had already spread  
3 to the neighbors house. PODESTA Jr. showed me where he tried to cut a fire line with  
4 the tractor on the north and east side of the fire on the edge of the stand of trees.  
5 PODESTA Jr. told me when he got to the fire there was nobody around and he was not  
6 aware of anyone being on the property or of any ongoing trespass issues. PODESTA  
7 Jr. told me the owners of the property don't live in the area but they had been up for  
8 several days and were staying at 17501 Butte Mountain Road and were across the  
9 street from the barn he was working on. I asked PODESTA Jr. if he or anyone else had  
10 been burning the brush pile I observed along the edge of the fire north of the powerlines.  
11 PODESTA Jr. told me, "Absolutely not". PODESTA Jr. told me he did not have any  
12 other information as to what caused the fire and I concluded the interview.

13  
14 I then interviewed Louie PODESTA Sr. separately at approximately 5:45 PM (See  
15 Attachment #6). PODESTA Sr. told me the following in summary:

16  
17 Louie PODESTA Sr. told me he was not home when the fire started and was at work  
18 most of the day. PODESTA Sr. told me he has not been out in the field in a long time  
19 other than at the barn next to Butte Mountain Road. He told me he didn't know of  
20 anyone that would have been in the field and has not had any trespass issues. I asked  
21 him about the partially burned pile of brush along the edge of the fire north of the  
22 powerlines. He told me he had not burned the pile and believed it was left by the tree  
23 trimmers when they trimmed around the powerlines. PODESTA Sr. told me tree crews  
24 had cut down a couple of trees next to the powerlines during the winter or spring of this  
25 year. PODESTA Sr. did not know the last time anyone came to inspect the lines or  
26 trees. He told me he did not have any information as to what may have caused the fire  
27 and I concluded the interview.

28  
29 After completing the interviews, I completed taking digital photographs and taking  
30 measurements within the GOA. The pine tree lying on the ground within the SOA was

1 labeled as Evidence Item #1.

2 At approximately 6:00 PM I contacted CAL FIRE Battalion Chief Chris VAN COR,  
3 advised him of the incident and requested a CAL FIRE LIDAR team and an arborist.  
4 VAN COR told me he would respond to my location and would work on ordering the  
5 resources requested. VAN COR arrived at scene at approximately 9:00 PM and told me  
6 the resources ordered would be out the next day. I maintained security of the origin  
7 throughout the night.

8

9 On September 10, 2015, at approximately 7:20 AM, VAN COR returned to my location  
10 and advised me the LIDAR team would be out this morning and the arborist would be  
11 out in the afternoon. The CAL FIRE LIDAR team arrived at approximately 9:45 AM and  
12 consisted of Garrett JACKSON and Jeff GAWRONSKI. VAN COR maintained security  
13 of the origin with the LIDAR team at scene and I cleared the incident. I returned to the  
14 incident at 1:10 PM and met with arborist Michael MAHONEY who had just arrived at  
15 the incident. I asked MAHONEY to complete an Arborist Report for the tree (Evidence  
16 Item #1) which was still in place and the surrounding stand of trees and vegetation.  
17 MAHONEY identified the pine (Evidence Item #1) as a Gray Pine. MAHONEY finished  
18 at approximately 4:10 PM and left the incident (See Attachment #7). The CAL FIRE  
19 LIDAR team finished at 4:55 PM and left the incident (See Attachment #8). VAN COR  
20 left the incident at 6:15 PM and I maintained security of the origin throughout the night.

21

22 On September 11, 2015, at approximately 7:15 AM, VAN COR returned to the incident.  
23 I collected Evidence Item #1 at approximately 8:00 AM. The tree was cut into several  
24 sections for transport and storage. VAN COR maintained security of the origin and I  
25 submitted Evidence Item #1 into the CAL FIRE evidence locker at approximately 10:23  
26 AM. I returned to the incident and a bucket truck was ordered so I could get a vantage  
27 point to observe the powerline conductors and take photographs. A Trees Inc. bucket  
28 truck arrived at the origin at approximately 12:25 PM and I met with General Foreman  
29 [REDACTED] I went up in the bucket and observed discoloration on the northern  
30 most conductor over the SOA and took photographs. I did not observe any discoloration

1 or damage to the other two conductors. Trees Inc. left the incident at 1:30 PM.  
2 I contacted the incident base and asked them to contact the PG&E representative at the  
3 base and have them contact me at the origin. At approximately 2:20 PM, PG&E  
4 representatives [REDACTED] and [REDACTED] arrived at the origin. I advised them  
5 of my observations to that point and that I would need to collect a section of the  
6 powerline conductor as evidence. They began to make some phone calls and left the  
7 origin at approximately 2:40 PM. At approximately 3:00 PM, PG&E representative [REDACTED]  
8 [REDACTED] arrived at the origin. I showed him what conductor section was to be  
9 collected as evidence and he gathered the information needed for a crew to come do the  
10 work. At approximately 3:05 PM [REDACTED] and [REDACTED] returned to the origin. They told  
11 me a PG&E investigator was enroute from San Francisco and they could not remove the  
12 conductor until the investigator arrived. At approximately 3:22 PM the PG&E  
13 representatives left the origin. At approximately 5:50 PM, PG&E representative [REDACTED]  
14 [REDACTED] and ACRT Inc. representatives [REDACTED] and [REDACTED] arrived at the  
15 origin and observed the GOA. [REDACTED] had a tablet with him and was looking at the  
16 vegetation work done within that section of the powerlines. He told me two pine trees  
17 adjacent to the tree I collected as evidence had been removed in January of 2015. It  
18 appeared the stumps and downed logs I observed in the SOA were part of those trees.  
19 He also told me Trees, Inc. does the trimming and removal work. [REDACTED] and  
20 [REDACTED] left the origin at 6:15 PM. I left the origin at 6:25 PM and VAN COR  
21 maintained security of the origin. At 8:24 PM I received an email from CAL FIRE Staff  
22 Chief Shane CUNNINGHAM (See Attachment #10). The email was forwarded by  
23 several people and the original email was from PG&E Helicopter Operations Department  
24 Manager [REDACTED]. The email stated that a PG&E fire patrol aircraft was one of  
25 the first to report the Butte Incident and included three photos taken from the aircraft.  
26 The photographs were taken at approximately 2:24 PM on 9/9/15 and show the fire's  
27 location and fire behavior. The information shown in the photos are consistent with my  
28 GOA determination, confirming my location determination and fire behavior  
29 observations. I returned to the origin at approximately 9:15 PM and VAN COR left the  
30 origin area. I maintained security of the origin throughout the night.

1 On September 12, 2015, at approximately 8:15 AM, VAN COR arrived at the origin.  
2 Neither of us heard from the PG&E investigator or were given an estimated arrival time.  
3 At approximately 11:00 AM, PG&E representatives [REDACTED]  
4 [REDACTED] and [REDACTED] arrived at the origin to observe the GOA.  
5 [REDACTED] left the origin area at 11:35 AM. At 12:05 PM,  
6 [REDACTED] told us PG&E investigator [REDACTED] was going to arrive on  
7 September 13<sup>th</sup> at about 12:00 PM. We contacted the incident base and placed an  
8 order for a security officer to our location to maintain security of the origin for the night.  
9 Paladin Security officer A. FINCH arrived at the origin at 12:10 PM. I showed FINCH the  
10 flagged off area surrounding the GOA and the overhead powerlines. He was given  
11 direction not to allow any access into the flagged area or access to the overhead  
12 powerlines. If anyone came to the origin he was to document their contact information  
13 and they could only view the area from outside the flagged area as well as call me and  
14 let me know who was there. At approximately 12:30 PM, [REDACTED] left the origin  
15 area. After confirming FINCH's instructions were clear, VAN COR and I left the origin  
16 area at approximately 12:35 PM. At approximately 1:41 PM I received a call from  
17 FINCH. He told me PG&E representatives [REDACTED] and  
18 [REDACTED] came to the origin area. FINCH told me they were not allowed  
19 within the flagged area and they left. FINCH was relieved by Paladin Security officer  
20 VENTURINO and at 7:00 PM VENTURINO noted on his log that two PG&E employees  
21 were denied access to the site.

22  
23 On September 13, 2015, at approximately 8:00 AM I arrived at the origin and met with  
24 security officer A. FINCH. VAN COR arrived at 8:10 AM and we waited for the PG&E,  
25 ACRT and Trees Inc. representatives and investigators. Representatives from ACRT  
26 and Trees Inc. with investigator Alan CARLSON arrived at approximately 9:41 AM. I  
27 showed CARLSON the location of the GOA and he began his documentation of the  
28 area. They also had a LIDAR team with them and they began their documentation  
29 outside the flagged area.

1 At approximately 11:20 AM, a woman came over to our location from the residence at  
2 the end of Charamuga Ranch Road. I recognized her as someone I contacted when I  
3 first arrived at the fire on September 9<sup>th</sup>. I contacted the woman and she identified  
4 herself as Jaime AFFONSO. She said she walked over to see why so many vehicles  
5 were over here since the fire was mostly burning in Calaveras. I told her I was  
6 investigating the origin and cause of the fire and if I could ask her some questions. She  
7 agreed (See Attachment #6) and AFFONSO told me the following in summary:

8  
9 AFFONSO told me on September 9<sup>th</sup> she was home babysitting her two grandchildren.  
10 She was in the kitchen and noticed it got darker outside, she looked out and saw smoke.  
11 She went out and saw a fire burning between her house and the Podesta's. She told me  
12 she called 911 to report the fire. AFFONSO told me prior to seeing the fire she did not  
13 lose power or notice any power surges. She told me she was outside on her porch  
14 about ten minutes before the fire and did not hear or see anyone in the area where the  
15 fire occurred. She told me she did not hear any vehicles or equipment in the area prior  
16 to the fire. AFFONSO told me she did not have any information as to what may have  
17 caused the fire and I concluded the interview.

18  
19 At approximately 11:30 AM, PG&E Area Supervisor [REDACTED] arrived with  
20 investigator [REDACTED]. I showed [REDACTED] the GOA and he began his  
21 documentation of the area. I remained at the origin during this time and provided  
22 CARLSON and [REDACTED] with information when asked. At approximately 1:58 PM, the  
23 PG&E, ACRT and Trees Inc. representatives stated they would like to collect the stump  
24 from the tree (Evidence Item #1). We all agreed the stump would be collected as  
25 evidence and retained by CAL FIRE. The stump was cut with a hand saw by Trees Inc.  
26 representative [REDACTED]. After we completed taking photographs I collected the  
27 tree stump as Evidence Item #2 at approximately 2:04 PM.

28  
29 At approximately 3:40 PM, PG&E had a bucket truck put in place within the GOA so we  
30 could photograph the powerline conductors prior to having any removed as evidence. I

1 went up in the bucket with PG&E representative [REDACTED]. I again observed and  
2 photographed discoloration on the northern most conductor as I had when I went up in  
3 the bucket on September 11<sup>th</sup>. I did not observe discoloration or damage to the center  
4 or southern conductors. [REDACTED] and I observed the discoloration on the northern  
5 conductor was visible over several feet along the conductor. He told me it appeared the  
6 tree slid along the conductor before falling to the ground. After taking photos, I identified  
7 a twenty foot section of the northern conductor, over the GOA, to be collected as  
8 evidence. [REDACTED] and CARLSON also went up in the bucket to view and photograph  
9 the conductors. They agreed the twenty foot section I identified was the only section of  
10 conductor needed to be retained as evidence. After [REDACTED] and CARLSON completed  
11 their documentation, PG&E representatives removed the twenty foot conductor section  
12 at approximately 4:53 PM. At this time, CAL FIRE, PG&E, ACRT and Trees Inc.  
13 representatives present were able to visually observe the conductor and take  
14 photographs. At approximately 5:22 PM, I collected the section of conductor as  
15 Evidence Item #3. At approximately 5:45 PM, all parties left the origin area and CAL  
16 FIRE no longer maintained security of the origin area. Evidence Items #1 – 3 were  
17 secured and retained within a CAL FIRE evidence locker.

18  
19 On September 16, 2015, VAN COR and I took a helicopter flight over the origin area of  
20 the fire. During the flight I took several photographs of the area. All the photographs I  
21 had taken to this point in the incident were retained as Evidence Item #4.

22  
23 On September 18, 2015, at approximately 11:00 AM, myself, as well as VAN COR and  
24 Dave WISEMAN from CAL FIRE met with PG&E representatives [REDACTED] and [REDACTED]  
25 [REDACTED] as well as CPUC representative R. YAMAMOTO in Jackson at their request.  
26 We accompanied them to the origin area of the fire so R. YAMAMOTO could observe  
27 the area. We all left the origin area at approximately 11:37 AM.

28 At approximately 12:30 PM I met with Jack and Diane CAUFIELD at 17501 Butte  
29 Mountain Road and asked if I could interview them regarding the fire. They told me their  
30 family owns the property at 17501 Butte Mountain Road which includes the barn and



1 property on the south side of the road. The CAUFIELD's told me the following in  
2 summary (See Attachment #6):

3 D. CAUFIELD told me her family had gotten together at the ranch for Labor Day  
4 weekend and when everyone left, she and Jack stayed a few extra days. She told me  
5 on September 9<sup>th</sup> they were sitting in the shade and pointed to an area on the north side  
6 of the house. Diane and Jack told me they didn't know there was a fire until Louie  
7 PODESTA Jr. yelled to them from the barn. J. CAUFIELD told me by the time he saw  
8 smoke it seemed like the fire engines were already driving by their house. J. CAUFIELD  
9 told me he saw the smoke in the area where the powerlines go through the trees and  
10 pointed it out to me from the house. Both Jack and Diane told me they didn't know  
11 anyone who would have been in the field and did not hear or see anything in the area of  
12 the fire. The CAUFIELD's told me they did not have any information as to what may  
13 have caused the fire and I concluded the interview.

14  
15 At approximately 2:50 PM I met with CAL FIRE Battalion Chief Frank PODESTA at the  
16 CAL FIRE Columbia Air Attack Base. PODESTA was the initial air attack officer on the  
17 fire and had taken photographs of the incident. I collected the photos taken by  
18 PODESTA as Evidence Item #5.

19 On September 19, 2015, I received an email from PG&E representative [REDACTED]  
20 The email provided me a link to download PG&E vegetation and maintenance inspection  
21 records for the origin area of the fire which I had requested (See Attachment #11). The  
22 documentation provided includes aerial images and LIDAR data of the origin area as  
23 well as vegetation management work request reports for the origin area location. They  
24 also included photos taken of the origin area after the fire. The documents state the  
25 aerial images were obtained on 6/24 and 6/25 and the LIDAR data obtained on 7/19 and  
26 7/20, the year was not specified. I observed the images provided with the LIDAR data  
27 showing the tree height of the canopy adjacent to the powerline conductors. I observed  
28 the images provided and was unable to identify individual trees within the canopy,  
29 specifically the Gray Pine (Evidence Item #1) on the north side of the powerlines. If  
30 PG&E and/or its sub-contractors were using these images and LIDAR data to conduct a

1 vegetation management or hazard inspection along the powerlines during the time frame  
2 shown on the images, it does not appear an adequate inspection of individual trees  
3 could be completed. For example, the Gray Pine (Evidence Item #1) cannot be clearly  
4 identified in the images or LIDAR data provided. Therefore, it cannot be determined if  
5 the tree is succumbing to the prolonged drought and showing signs of dying or disease  
6 and/or if it's leaning towards the powerline conductors and needing to be trimmed or  
7 removed in accordance with Public Resources Code 4293.

8 I also reviewed the vegetation management reports provided. The reports refer to the  
9 powerlines as both the Electra 1101 and Martell 1102 circuits. PG&E representative  
10 ██████████ told me they are the same circuit and include the powerlines identified in  
11 the origin area. He told me the lines run from Electra to the Martell substation and the  
12 vegetation management companies refer to it as the Martell 1102 because they work  
13 from the substation out. The documents show an inspection of the origin area occurred  
14 in October 2014 and identified the removal of the two Gray Pines adjacent to the Gray  
15 Pine identified as Evidence Item #1 as well as the trimming of other trees. The  
16 inspection was completed by PG&E sub-contractor ACRT. The report states the trees  
17 were removed in January 2015 which is consistent with what ACRT representative  
18 ██████████ told me. It shows PG&E sub-contractor Trees, Inc. as the company that  
19 completed the work.

20 In the reports provided, there was no documentation regarding the interior trees that  
21 would be exposed after the removal of the two Gray Pines in January. There is nothing  
22 from the October 2014 ACRT inspection regarding the stand or the need to re-evaluate  
23 the interior trees once the outer (edge) trees were removed. The reports show Trees,  
24 Inc. removed the trees in January 2015. There is nothing documenting the condition of  
25 the newly exposed interior trees or a request to have them evaluated after that date.  
26 The documents provided also have the vegetation management inspection reports for  
27 the clearance around the base of poles with specific equipment. Two of the poles  
28 identified at 17501 Butte Mountain Road were pole #099650 and #099651. These poles  
29 were at the west and east edges of the fire and the Gray Pine (Evidence Item #1) was  
30 located along one of the spans running between these poles. The reports for each pole

1 show an inspection date of April 15, 2015. They also show work request numbers for  
2 each pole with completion dates of April 15, 2015 and July 27, 2015. The reports  
3 document work done at the base of the two poles but there is nothing documenting if the  
4 powerline conductors or vegetation was inspected between the two poles.

5  
6 Between September 22, 2015, through February 17, 2016, three evidence viewings for  
7 the Butte Incident were held at the CAL FIRE Headquarters in Auburn. (See Attachment  
8 #12) for the evidence viewing documentation.

9  
10 On February 29, 2016, I received the Arborist Report from M. MAHONEY (See  
11 Attachment #7). The following is a summary of the report:

12  
13 The report identifies the Gray Pine (Evidence Item #1) as being encompassed by a  
14 stand of Gray Pines. MAHONEY states in the report when trees are captured and  
15 develop within a closed stand, they have narrow growth rings and poor stem taper.  
16 When the stand is altered and captured interior trees are exposed to open spaces,  
17 whether for right-of-way clearance or other reasons, they are prone to failure. He states  
18 it's apparent that the act of cutting the larger pines that previously contained the stand  
19 exposed the interior trees. The report provides a sketch of the Gray Pine (Evidence  
20 Item #1) and certain trees in the stand and their proximity with the conductors south of  
21 the stand along with a compass rose and indication of the path of the sun. MAHONEY  
22 states it is well understood that trees have a physical orientation toward the path of the  
23 sun and this can have significant consequences for maintaining safety. In his  
24 observations of the Gray Pine (Evidence Item #1), MAHONEY states the burn marks on  
25 the tree in the second increment beneath the tip of growth are characteristic of contact  
26 with energized electrical equipment. He describes the stem at this location as severely  
27 charred (top and bottom) with two lateral limbs whose tips caught fire, were burned-off,  
28 and fell onto the easement below. He states there is less charring on the two lateral  
29 branches indicating they rested on the conductor very briefly compared to the larger  
30 main stem.

1 MAHONEY states there are significant growth and development implications for the  
2 captured tree (Evidence Item #1) released in the 2015 growing season. The subject  
3 tree (Evidence Item #1) was already tall enough to reach the conductor and when it was  
4 allowed greater solar exposure tip extension was fortified. MAHONEY also made  
5 several arboricultural hypotheses in his report; the following are some of those:

- 6 • The unusual appearance of the subject tree was immediately apparent
- 7 • Burn marks on the tree top corresponded with likely tree/line contact.
- 8 • Site inspection and photographic evidence demonstrate the tree lacked reaction  
9 wood and was unable to stand on its own.
- 10 • Recent tree/line maintenance activities caused the tree to fail.
- 11 • Trees that are captured within the confines of a dense stand do not develop  
12 reaction wood, have poor trunk taper, and are inherently unstable.
- 13 • Stable trees were removed exposing the weak interior trees to the elements.
- 14 • Visual inspection of burns & contact points and the series of nodes and inter-  
15 nodes that correspond to annual growth increments demonstrate that the tree  
16 was sufficiently tall to reach the conductor in the 2014 growing season, before  
17 adjacent larger trees were removed.
- 18 • Stable trees were removed from the stand edge and they exposed weak interior  
19 trees to physical properties of the natural elements.
- 20 • Prevailing winds are to the south in the Jackson CA vicinity predisposing the  
21 unstable Gray pine to fall toward the conductors.
- 22 • Secondary growth developing in the subject tree's canopy and other recently  
23 exposed tree canopies would be most prolific on their southern side – facing the  
24 energized conductors.
- 25 • Gravitational leverage resulting from new foliage and tip growth causes the tree  
26 to fall to the south.

27 This concludes the summary of the Arborist Report.  
28  
29  
30

**Opinions/Conclusions:**

I believe based on my training, education, experience, observations, evidence, 911 audio, reports and witness statements the wildland fire (Butte Incident) was caused when a Gray Pine (Evidence Item #1) contacted a PG&E powerline conductor which ignited portions of the tree. Burning embers from this contact with the conductor dropped into the fine dead fuels below the conductor, igniting the wildland fire which burned onto numerous properties not owned or controlled by PG&E in violation of PRC 4421. While conducting the origin and cause investigation I was able to exclude all other standard wildland fire causes.

During the investigation I determined PG&E and/or its sub-contractors ACRT and Trees, Inc. conducted powerline vegetation management inspections and maintenance in 2014-2015 within the area of origin. They identified (October 2014) and removed (January 2015) two Gray Pines on the outer edge of the pine stand on the north side of the powerline conductor identified as being within the GOA of the fire. The removal of these two pines exposed the interior trees, including the Gray Pine (Evidence Item #1) that were previously captured and developed within the closed stand provided by those removed pines. These now exposed trees were left open to the south, towards the path of the sun and the powerlines. It is known, when a stand is altered and captured interior trees are exposed to open spaces, they are prone to failure. PG&E and/or its sub-contractors ACRT and Trees, Inc. failed to identify this during their 2014 inspection when the pine trees were identified for removal, or in January 2015 when the trees were removed, or during any subsequent inspections/maintenance conducted on that section of powerlines and poles. Failing to identify the potential hazard of leaving weaker, inherently unstable trees on the edge of the stand, without conducting maintenance on them, ultimately led to the failure of the Gray Pine (Evidence Item #1) which contacted the powerline conductor operated by PG&E and ignited the uncontrolled wildland fire.

Gianni Muschetto 4/25/16

Gianni Muschetto, #15

Battalion Chief, CAL FIRE

**10 - ATTACHMENTS:**

1. FC-34 Interagency Report of Incident and Dispatch Action
2. Butte Incident Damage Inspection Summary
3. Incident Sketch
4. Weather Data
5. Photographs
6. LE71's – Witness Interviews
7. Arborist Report
8. LIDAR Mapping Exhibit
9. LE75e – Evidence Log
10. Email and Photographs sent by PG&E Helicopter Operations  
Department Manager [REDACTED]
11. PG&E Vegetation and Maintenance Inspection Records
12. Evidence Viewing Documents