



Preliminary Ignition Investigation Report

Ignition Database Index:	20240610
Electric Incident Investigation (EII) Number:	N/A
Incident Name:	N/A
PG&E Facility Ignition?	Yes
CPUC Reportable Ignition?	Yes
Date & Time of Incident:	June 08, 2024 @ 0728 hours
Street Address:	In the vicinity of [REDACTED]
City:	Magalia
County:	Butte
Latitude/Longitude:	[REDACTED]
State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)	State Responsibility Area (SRA)
PG&E Division:	North Valley
High Fire Threat District (HFTD):	Tier 3
High Fire Risk Area (HFRA):	Yes
EPSS Buffer:	No
Fire Index Area (FIA):	248
Fire Potential Index (FPI) Rating: FIA	R1
Fire Potential Index (FPI) Rating: Circuit	R3
Was there a PSPS event at the time of ignition?	No
Suspected Initiating Event:	Equipment - Overloaded
Failure Driver:	All types of equipment/facility failure
Failure Sub-driver:	Riser failure
Circuit:	Oro Fino 1102
Circuit Protection Zone:	Oro Fino 1102787504
Nominal Voltage:	12kV – Circuit 750V – Secondary (Incident Location)
Pole SAP Equipment ID:	SAP Pole ID: 104011327
Subject to PRC 4292 Veg Pole Clearance:	No
PG&E Equipment associated with ignition:	Service Drop
EPSS enabled at time of ignition?	No
Fault Type:	Line to Ground
Wire Down (Primary)?	No
Lead Agency/Agency Having Jurisdiction:	CAL FIRE
Fire Size:	One meter - three meters in size

FAS Field Remarks:	secondary service overloaded from grow operation. melted at splices on secondary riser and Burnt mounding and service causing one fuse to blow on tx. created disconnect tag and left cust out so they can upgrade their equipment and we will have to run a new service larger than /0 to accommodate load. cust was pulling approx 17,000 kwph based on records.
HAWC Summary:	N/A
Injuries / Fatalities / Property Damage / Media Attention:	No/No/No/No
Weather Conditions:	It was a fair and dry day on June 8th, 2024, near the incident location. 65.2° @ 0730 hours.
Red Flag Warning (RFW) / High Wind Warning (HWW):	No/No
911 Standby Relief Time:	47 minutes
OIS #:	2479910
ILIS #:	24-0074941
FAS #:	T006414705
TOTL #:	N/A
Assigned Attorney:	N/A
Ignition Investigator & Phone:	

Executive Summary

On June 8, 2024, at approximately 0731 hours, PG&E dispatched a troubleshooter in response to a 911 call from the fire department in the vicinity of [REDACTED], in Magalia CA. The ignition occurred on a secondary service segment of the Oro Fino 1102 750V Distribution Circuit (see Figures 1 and 2), in Tier 3 High Fire Threat District (HFTD), State Responsibility Area (SRA), and High Fire Risk Area (HFRA) during FPI R3 conditions.

The PG&E troubleshooter arrived on the scene at approximately 0806 hours and observed a fire. The troubleshooter indicated that the secondary service was overloaded from a grow operation. This melted the splices on the secondary riser and bunt the molding and service conductor causing one fuse to blow on the transformer. This led to a vegetation fire on and around the base of SAP Pole ID # 104011327, (see Figures 3, 4, 5, and 6).

The ensuing fire was contained between one meter - three meters in size and the fire was suppressed quickly by CALFIRE on June 8, 2024. The PG&E troubleshooter retained the riser conductor and transformer fuse as evidence.

The troubleshooter submitted an Emergency Repair (ER) Notification priority "G" Tag (#129228069) to disconnect the power, so the customer can upgrade their equipment. The customer will have to run a new larger service to accommodate the required load needed to safely run the supplement power supply at the property. The customer was pulling approximately 18,000 Kilowatts hours (KWh) monthly based on records.

The PG&E Revenue Assurance team completed a field check investigation at the incident property on July 24, 2024, and could not substantiate if any diversion of our service was present. Upon further investigation, the panel that was in place during the time of the incident has been removed and replaced with what appears to be a 400-amp panel. The customer's demand was at the threshold for what a residential 200-amp service could handle. Surprisingly the panel or meter did not fail due to the excessive load. The customer was not in compliance with their loading and what our service could handle, resulting in transformer failure.

The customer's account has been noted with a Building and Renovation Service Center (BRSC) contact since the customer appears to be upgrading their panel and hasn't followed the proper steps for notifying PG&E. The new panel will also require a county inspection before any services are restored.

Meteorology data pulled from the MesoWest weather observation site that was approximately 1.5 miles west-southwest of the Incident Location indicating it was a fair and dry day at 65.2°F with a relative humidity of 70%. Winds registered 1.1 Miles Per Hour (MPH) with gusts up to 2.0 MPH at the approximate time of the incident. Relative humidity was as high as 75 % at 2220 hours and as low as 41% at 1650 hours.

Repair work has not been completed and power has not been reconnected as of the date of this report being finalized.

Extent of Condition Summary

The pole ignition likely resulted from the failure of a secondary riser involving 1/0 aluminum conductors. A visual inspection of the conductor revealed melting patterns on two hot legs, leading to the breakage of aluminum strands near the ground line. Significant thermal damage was observed on a compression splice, which appears to be the initial failure point, (see Figures 7 and 8).

Historical data indicates that the transformer, with a nominal capacity of 15 kVA, has been consistently loaded beyond 30 kVA since 2021. This electrical overload may have caused a hotspot, leading to the deterioration of the connector, (see Figure 9).

System Protection Analysis

The Oro Fino 1102 750V Distribution line Circuit was not enabled with Enhanced Powerline Safety Settings (EPSS) at the time of the incident due to this ignition occurring on a Secondary line.

Ignition Impact

This ignition on June 8, 2024, resulted in a vegetation fire that was one meter - three meters in size. The associated outage from this fire affected one customer for a total of 137 customer minutes. PG&E is not aware of any injuries, fatalities, media attention, or property damage associated with this ignition.

Sequence of Events

June 8, 2024

- 0728 hours: First event - First No Light (FNL) – one customer affected by the outage.
- 0731 hours: Troubleshooter dispatched.
- 0733 hours: CAL FIRE dispatched.
- 0806 hours: Troubleshooter arrives onsite.
- 0944 hours: Transformer [REDACTED] disconnected.

Corrective Notification Associated with Ignition

ER Notification priority “G” Tag (#129228069) was created to disconnect service and replace the transformer that was overloaded from a grow operation and was serviced by an underground riser that led from SAP Pole ID: 104011327. Repair work has not been completed and power has not been reconnected as the date of this report being finalized.

Pending Work

Type	Number	Description	Priority	Date Identified	Due Date
EC Notification	N/A				
COE Notification	N/A				
LC Notification	N/A				
Veg Work Order	N/A				

Please note this may not include pending major program or project work at the incident location.

Asset Info & Most Recent Inspections and Tests

Source Side Structure	SAP Pole ID: 104011327 - Dead-End Pole	
Info / Inspection	Most Recent Date	Findings
Install Date:	January 1, 2021	Wood Pole – Class 1 – Height 45’
Inspection:	April 26, 2022	GO165 Inspection – No declaration items reported
	April 22, 2021	GO165 Inspection – No declaration items reported
Patrol:	N/A	
	N/A	
Corrective History:	June 12, 2024	ER Notification priority “G” Tag (#129228069) was created to disconnect service and Replace a Transformer that Overloaded from a grow operation that was serviced by an underground riser that led from SAP Pole ID: 104011327.
Aerial Inspection Records:	August 13, 2019	SAP Pole ID 104011327 (Shaper Shape) No abnormal conditions visible, (see Figure 10).
VM Inspection:	N/A	
EVM Inspection:	N/A	
Equipment Test:	N/A	

This report is preliminary and based on available information as of **August 06, 2024**; event data is subject to change based upon subsequently discovered information.

Pole Intrusive Test:	N/A	Pole was installed in 2021, Test not required until the year 2031
WSIP Inspection:	N/A	There were no WSIP records available

*Incident Location: SAP Pole ID: 104011327

Hazard Barrier Analysis:

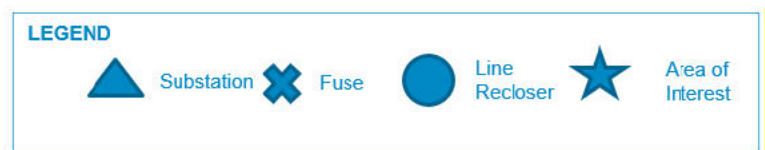
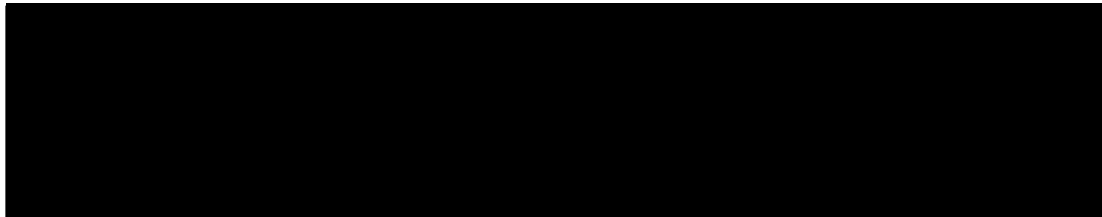
Hazard	Equipment Failure	Sub-Hazard	Riser Failure
Target	Transformer overloaded from Grow Operation		
Barrier	Expected vs. Observed Performance	Why did the barrier not prevent the ignition event?	Opportunity
Barriers that Negatively Affected Ignition			
Barriers that were Assessed as Opportunities			
Overloaded Transformers Replacement Program	Expected Performance: Targets replacement of transformers identified through overload reports, recorded high oil temperature indicators, or multiple thermal protective device operations during peak load periods; Observed Performance:	[A2B1C2D2 - Malfunction: Operational Malfunction; Process Malfunction; Work improperly cancelled]	This particular transformer is associated with ER 129228069, PM 35568011, which was recently created, and the estimate is in progress, additionally, the service conductors are reviewed and, in many cases, upgraded along with the transformer.

Potential Next Steps / Associated CAP Items:

Building and Renovation Service Center will be able to see the notes attached to the customer's account and complete the process. No CAP is required at this time.

Single Line Diagram

This report is preliminary and based on available information as of **August 06, 2024**; event data is subject to change based upon subsequently discovered information.



Photos and Diagrams of Events

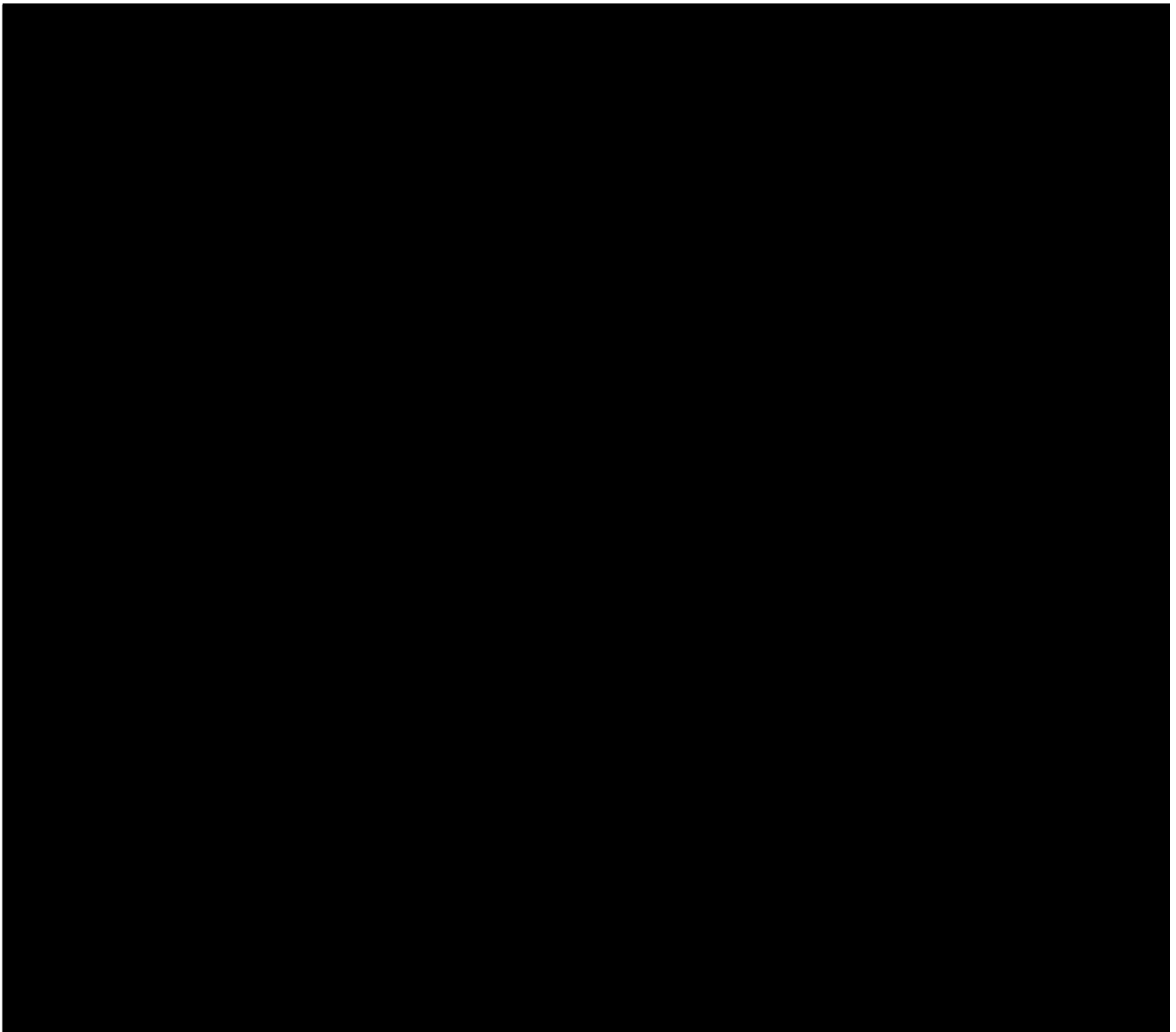


Figure 1 - Google Earth Diagram of the Oro Fino 1102 Circuit. The location of the fire is approximate based on reports and pictures provided.

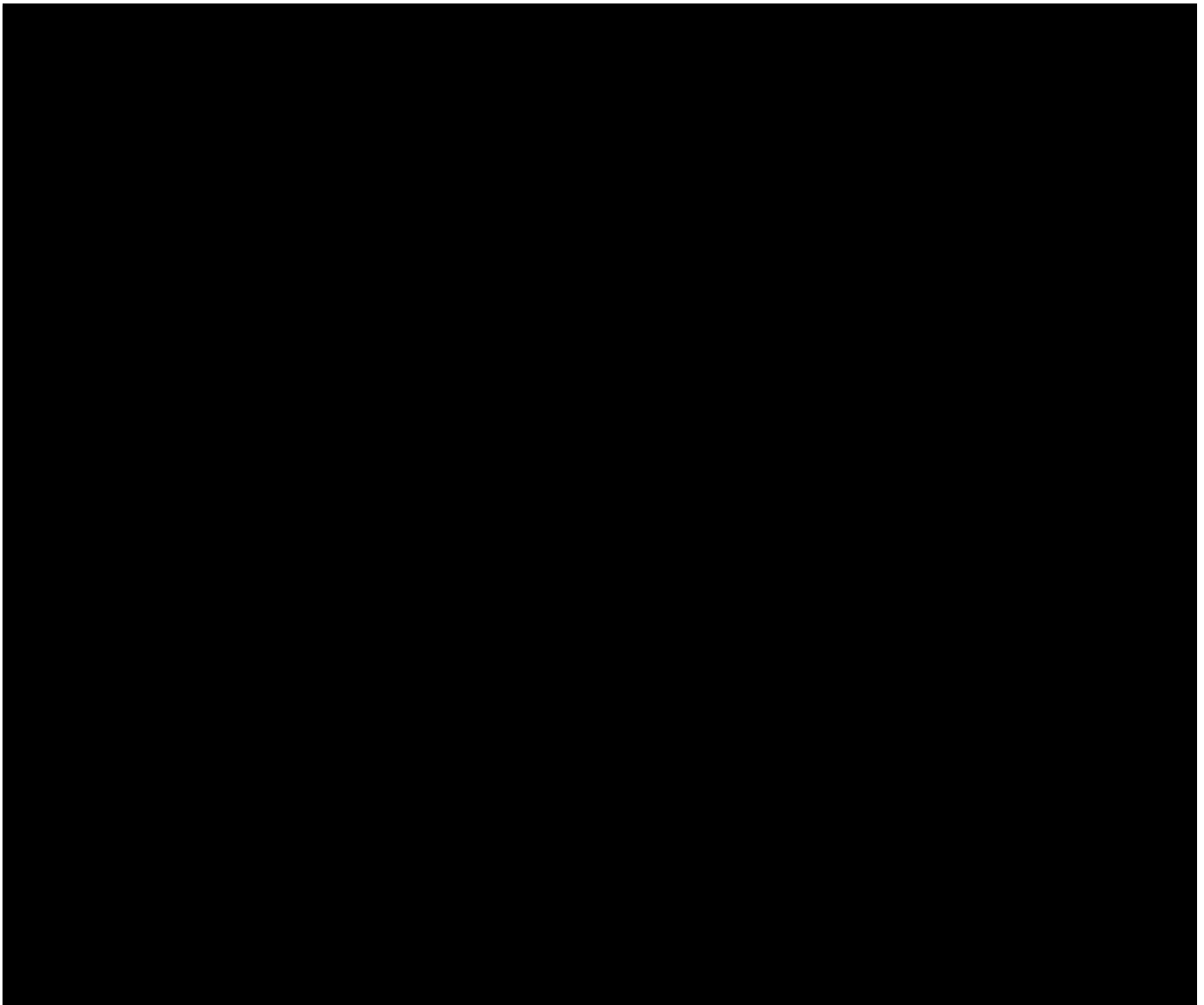


Figure 2 - EDGIS Diagram of the Oro Fino 1102 Circuit at the incident location, SAP Pole ID: 104011327, and a list of the upstream dynamic protective devices between the Substation and Incident Location.



Figure 3 - SAP Pole ID: 104011327. Picture taken by the troubleshooter on June 8, 2024



Figure 4 – Ignition and Fire origin area where the secondary riser burnt the molding and service conductor leading to the cause of ignition. Picture taken by the troubleshooter on June 8, 2024.



Figure 5 - Fire burn scar area. Picture taken by the troubleshooter on June 8, 2024



Figure 6 – Butte County CAL FIRE Department onsite to assist in controlling and suppressing the fire spread, picture taken by the troubleshooter on June 8, 2024.



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EQUIPMENT INFO

SAP Equipment: 104011327
Year Pole Installed: 2021 (EDGIS)

Lat: [REDACTED]
Long: [REDACTED]

As-Received Photos



Field Photos



OH Inspection 2022



Figure 7 - The pole ignition likely resulted from the failure of a secondary riser involving 1/0 aluminum conductors. A visual inspection of the conductor revealed melting patterns on two hot legs, leading to the breakage of aluminum strands near the ground line.



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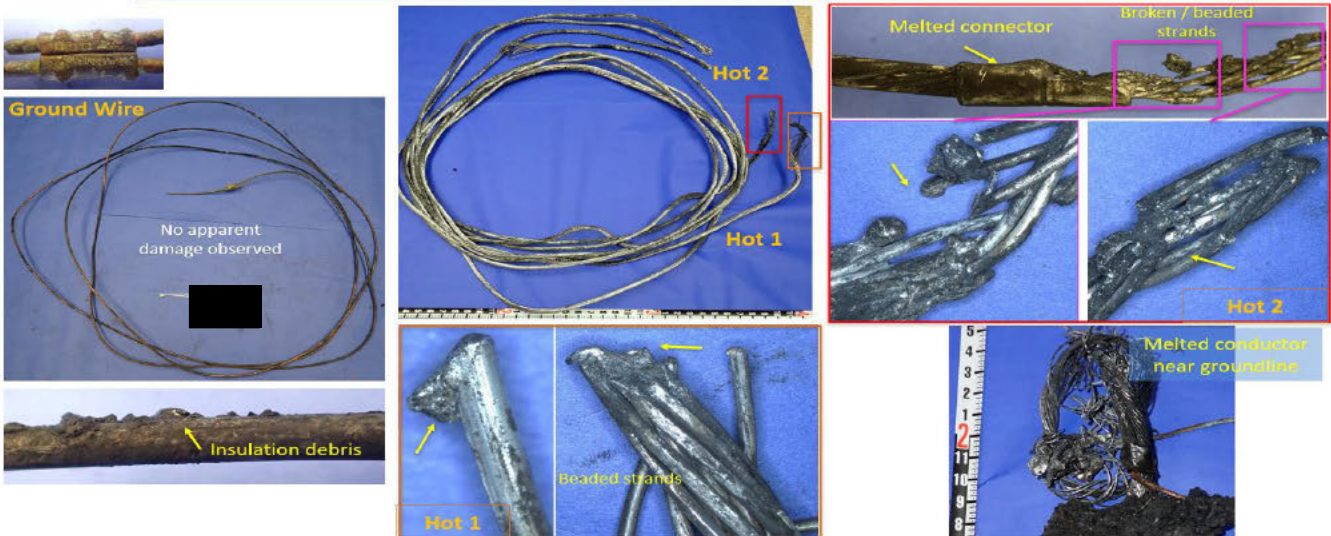


Figure 8 - Significant thermal damage was observed on a compression splice, which appears to be the initial failure point.



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1
Cust Served

15
Mk and Phase

Tier 3 - Extreme
WPT2

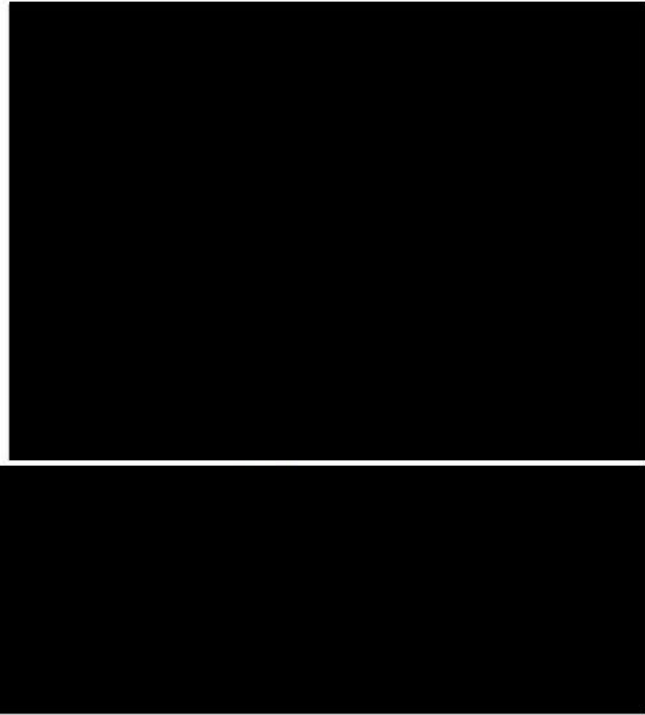


Table 1 Ampacity of Insulated, Service-Drop Conductors - Amperes (See Notes 6, 10 and 11 on Page 1)

Conductor		Summer Interior		Summer Coastal		Winter	
Type	Size AWG or kcmil	Triplex	Quadraplex	Triplex	Quadraplex	Triplex	Quadraplex
Aluminum	8 ¹	88		78		96	
	4	83		91		113	
	2	119		131		166	
	1/0	158	136	175	151	225	195
	4/0	238	205	250	229	343	297
Copper	8 ¹	91		67		83	
	6	88		97		124	
	4	115		128		163	

¹ #6 Aluminum and #8 Copper are duplex cables.

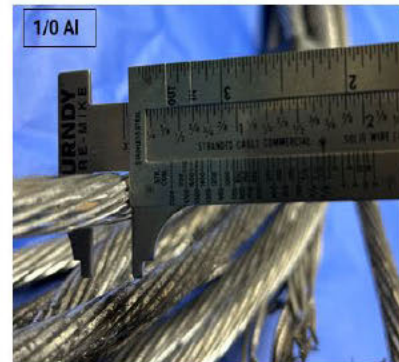


Figure 9 - Historical data indicates that the transformer, with a nominal capacity of 15 kVA, has been consistently loaded beyond 30 kVA since 2021. This electrical overload may have caused a hotspot, leading to the deterioration of the connector.

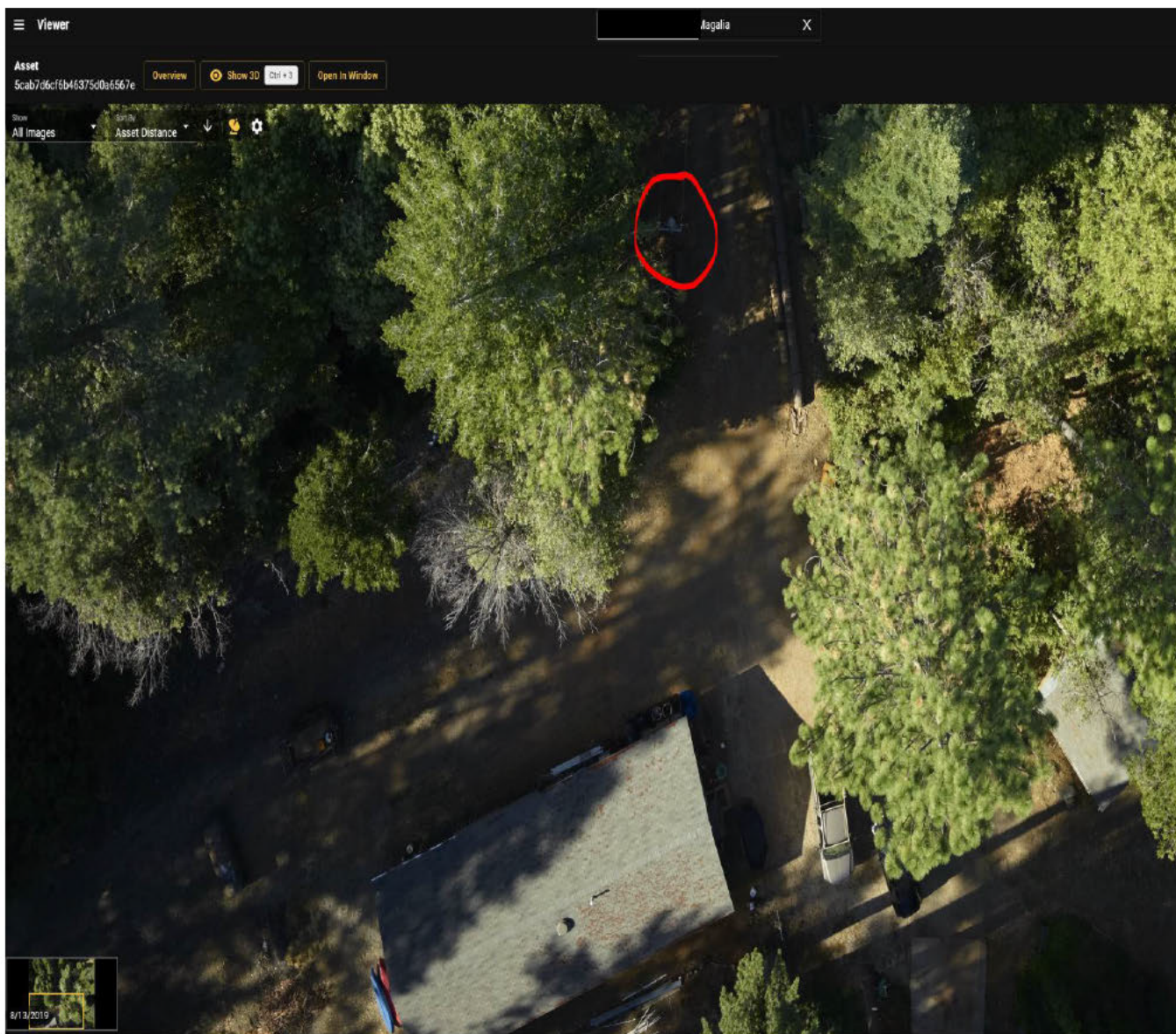
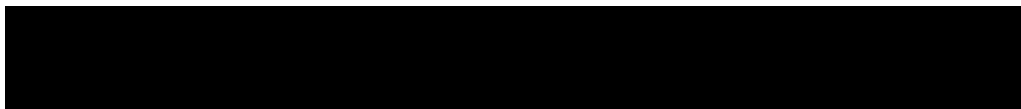


Figure 10 - SAP Pole ID: 104011327 (Incident Pole), picture taken from Shaper Shape dated August 13, 2019

Attachments

Attachments and references can be located in the ESA folder, located below:



-----END of REPORT-----