

# GREEN SHEET

**California Department of Forestry and Fire Protection  
(CAL FIRE)**

## **Informational Summary Report of Serious CAL FIRE Injuries, Illnesses, Accidents and Near Serious Accidents**



### **Burn Over of Two Private Bulldozers – Firefighter Near Serious Accident**

**September 14, 2015**

**Lumpkin Incident**

**15-CA-BTU-013357**

**California Northern Region**

A Board of Review has not approved this Informational Summary Report. It is intended as a safety and training tool, an aid to preventing future occurrences, and to inform interested parties. Because it is published on a short time frame, the information contained herein is subject to revision as further investigation is conducted and additional information is developed.

**Lookout**

**Communications**

**Escape Routes**

**Safety Zones**

## SUMMARY

In the afternoon on September 13, 2015, two private bulldozers became stuck on Division Delta (DIV D) while operating on the Lumpkin Incident. The bulldozers were constructing downhill fire line on a ridge that was steep, narrow and densely wooded starting from Ponderosa Way. During the course of this operation, the bulldozers proceeded to a point where it was no longer safe to operate due to the terrain and visibility. Both bulldozers were left on the fire line overnight.

On September 14, 2015, one of the private bulldozer operators (Operator E-1) and two CAL FIRE Dozer Bosses (DOZB1 and DOZB2) returned to the site where the dozers were left the night before, to build a plan for the removal of the bulldozers. The main fire was burning one ridge to the west. During the meeting, a slope reversal occurred and the main fire became established in the drainage directly below Operator E-1, DOZB1 and DOZB2. The fire intensity increased significantly. Operator E-1, DOZB1, and DOZB2 attempted to retreat uphill along the dozer line. During the retreat the group was cut off and could not make it to the road ahead of the advancing fire. All three individuals turned and ran downhill where they were assisted to safety by communications with Helicopter 205 (C205) and a Field Observer (FOBS1), who was honking his vehicle horn to give them a direction of escape. The two private bulldozers were burned and were rendered inoperable. No injuries occurred.

## CONDITIONS

### Site Conditions

The slope of the ridge is primarily 100% with sections of 115%. The soils are composed of shallow duff and topsoil over loose, rocky material with intermixed rock outcroppings.

### Weather<sup>1</sup>

Date: September 13, 2015 at 2:10 p.m.  
Temperature: 85 degrees (daily high)  
RH: 26%  
Winds: W 5-10 mph  
Elevation: 3701 feet

Date: September 14, 2015, 11:10 a.m.  
Temperature: 67 degrees  
RH: 45%  
Winds: SE 10-11, gusts 19 mph  
Elevation: 3701 feet

### Make/Model of Equipment

Dozer E-6 (E-6)  
Caterpillar D6K

Dozer E-1 (E-1)  
Caterpillar D6M XL

---

<sup>1</sup> Data obtained from RAWS station at Pine Lake County Lookout, CA (PKCC1).  
Latitude: 39 28.48098 N, Longitude: 121 12.14364 W

## SEQUENCE OF EVENTS

### September 12, 2015

DOZB1 and DOZB2 scouted DIV D and Division Echo (DIV E) for a ridge to construct dozer line. A ridge was identified and communicated to DIV E, DOZB3 and the Incident Commander (IC).

### September 13, 2015

The oncoming IC briefed the oncoming DIV D and oncoming DIV E on the day's operational plan.

At morning divisional briefing, DOZB3 was given an assignment by DIV E to scout a ridge closer to the fire's edge than the ridge agreed upon the previous day with DOZB1 and DOZB2.

At approximately 0900 hours, DOZB3 and FOBS1 arrived on the line and scouted a narrow, steep ridge for the construction of indirect fire line. In discussion with E-1 and E-6, disagreement was expressed over the location of the line. DOZB3 and FOBS1 walked and flagged the path for the dozers. After scouting and flagging the line, E-1 and E-6 agreed to the indirect line construction.

At approximately 1430 hours, DOZB3 and E-1 began to construct line from Ponderosa Way (see map detail) with E-6 following.

At approximately 1600 hours, E-1 began to slide on rocks, becoming lodged against a tree and stopped. E-6 cut a path around E-1. During the construction of a pad to assist E-1, E-6's rakers became entangled in a series of downed, jack strawed logs. At approximately 2030 hours, the decision was made to stop constructing line until the next morning.

### September 14, 2015

At approximately 0830 hours, DOZB1, DOZB2, and DOZB3 met on the line for shift exchange. DOZB1 and DOZB2 then proceeded down the line with Operator E-1. Following a discussion, the decision was made to order a bulldozer with winch capability (Dozer3) to assist with recovering E-1 and E-6.

Concurrent with the dozer recovery operation, resources from DIV D and DIV E were conducting a firing operation near Drop Point 3, located two ridges to the west of the stranded dozers.

DOZB1, DOZB2 and DIV D recognized the proximity of the bulldozers to the advancing fire while waiting for Dozer3. C205 was requested to serve as a lookout over the operation.

**Lookout**

**Communications**

**Escape Routes**

**Safety Zones**

Upon arrival, Dozer3 benched the road to create better access to E-1 and E-6. DIV D then advised of fire below Ponderosa Way in DIV D and near DOZB1, DOZB2, and Operator E-1.

At approximately 1130 hours, C205 advised of fire in the drainage to the west, directly in line with the dozer recovery operation.

At approximately 1132 hours, DOZB1, DOZB2 and Operator E-1 abandoned the recovery operation and attempted to make it uphill to Ponderosa Way. DOZB1, DOZB2 and Operator E-1 made it to within 150' of Ponderosa Way and were cut off by the advancing fire.

At approximately 1148 hours, DOZB1 declared "priority traffic" over Command 7. The path to Ponderosa Way was cutoff by the spreading fire and DOZB1, DOZB2, and Operator E-1 were forced to run downhill, approximately 2,400 feet.

DOZB1 considered potential fire shelter deployment sites but no fire shelters were removed from their webgear or deployed. The fuels in the area were dense and multiple spot fires were developing. The retreat was assisted with water drops from C205 and audible noise from FOBS1 vehicle's horn. Operator E1, DOZB1 and DOZB2 made it to FOBS1 vehicle and were able to exit the burn area.

The fire progressed to a running crown fire and jumped Ponderosa Way.

Accountability for all personnel was completed at approximately 1206 hours.

## **INJURIES/DAMAGES**

**Injuries:**

No injuries to either of the DOZB's or Operator E-1.

**Damage:**

E-1 and E-6 sustained serious damage and were rendered inoperable.

## **SAFETY ISSUES FOR REVIEW AND LESSONS LEARNED**

1. Consider the human factors that affect decision making (Human Factors in the Wildland Fire Service L-180).
  - A. Give clear instructions, and ensure they are understood.
  - B. Understand the capabilities and limitations of the equipment and the experience of each operator.
2. Ensure all personnel are trained on the proper process for refusal of risk (Incident Response Pocket Guide, page 19).
3. LCES
  - A. The posting of LOOKOUTS, and continuous COMMUNICATIONS was the key to personnel making it off the fire line safely.
  - B. Identify a realistic ESCAPE ROUTE leading to a designated SAFETY ZONE.
4. A lack of following the unity of command can contribute to confusion affecting the decision making process.

## PHOTOS/SITE DIAGRAMS/MAPS



This picture was taken,  
September 14, 2015, at 1204  
hours, shortly after fire crosses

This picture of E-1 was taken,  
September 14, 2015, at 1653 hours.



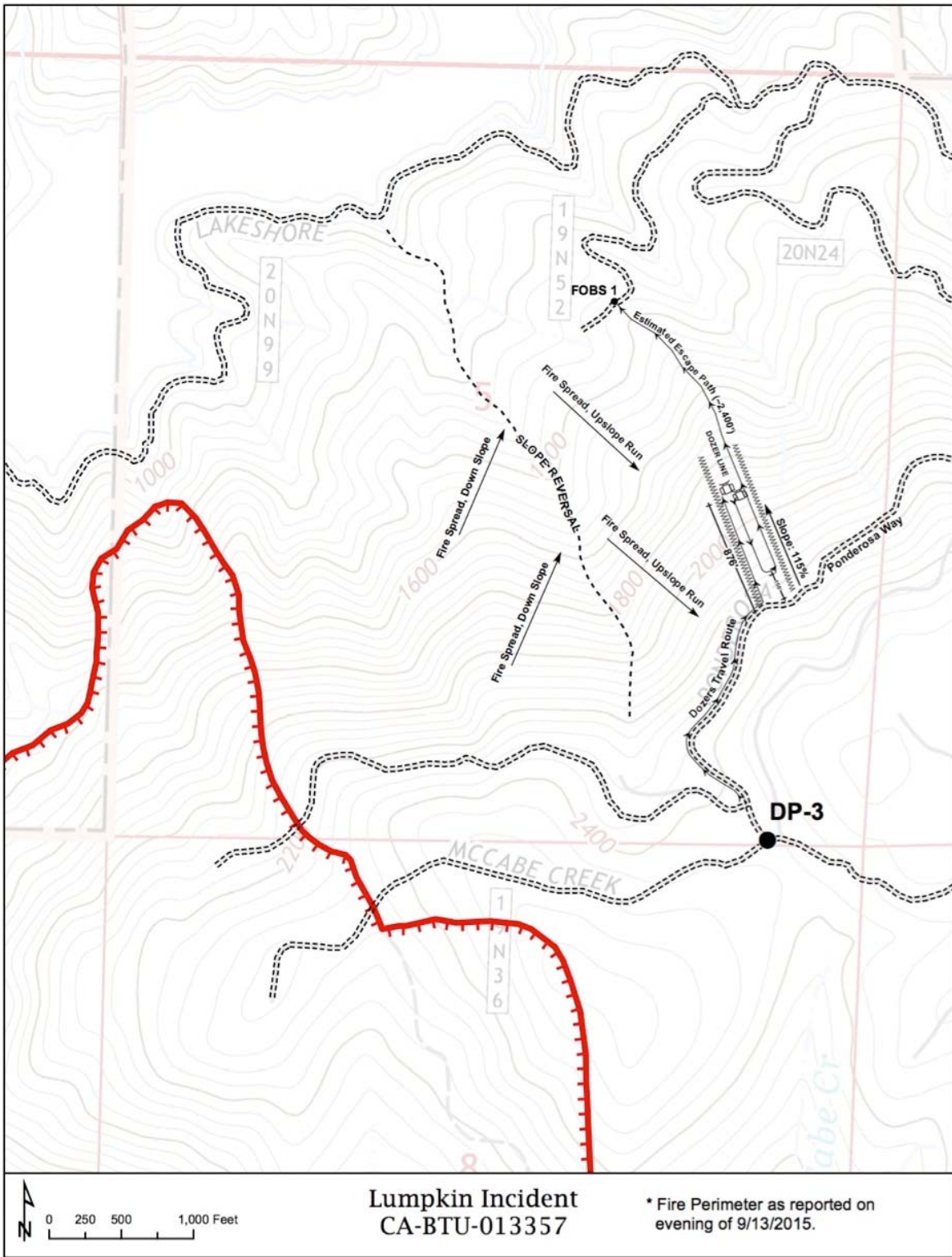
This picture of E-6 was taken,  
September 14, 2015, at 1703 hours.

**Lookout**

**Communications**

**Escape Routes**

**Safety Zones**



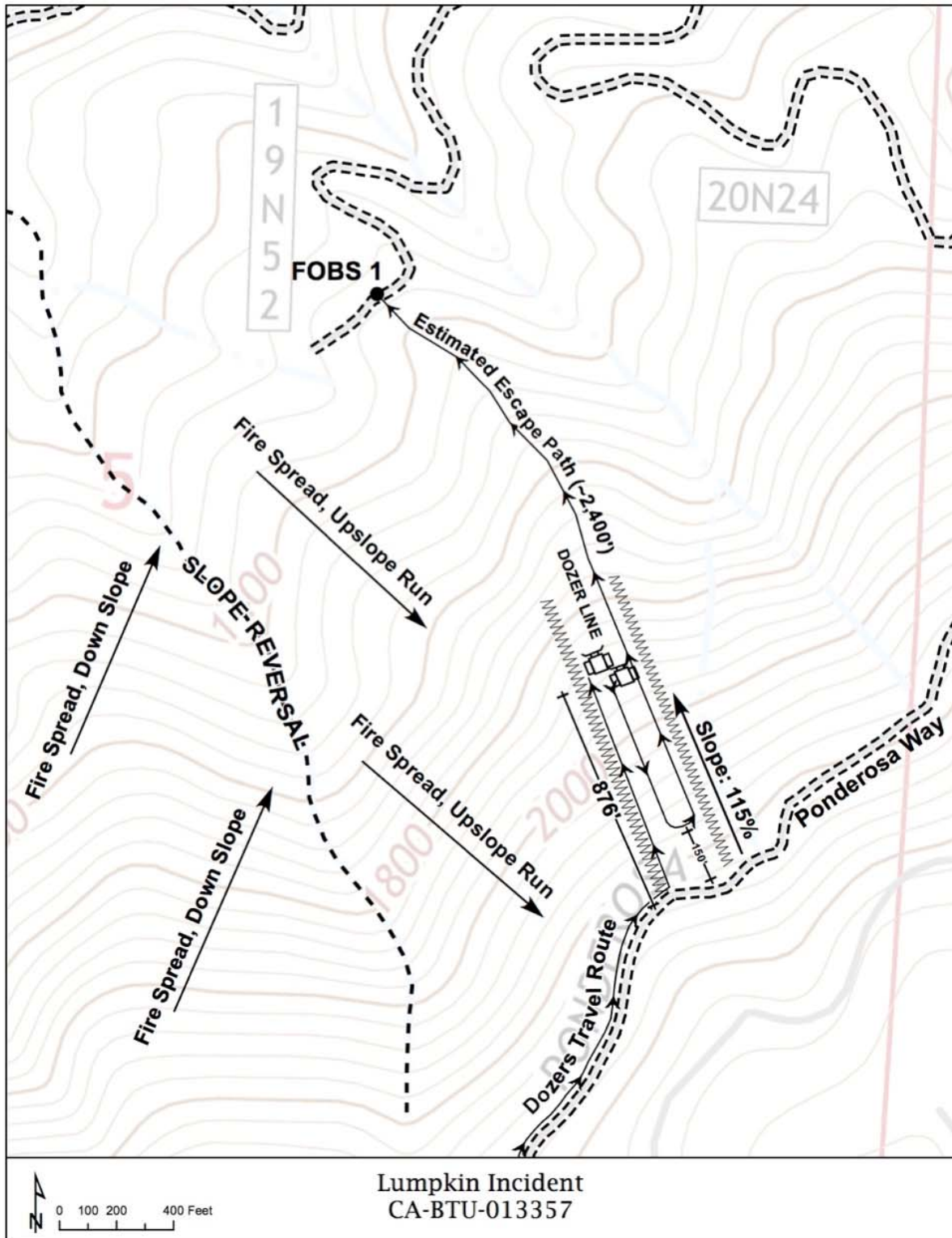
Lookout

Communications

Escape Routes

Safety Zones





Lookout

Communications

Escape Routes

Safety Zones