

 USDA Forest Service	<b>Wildland Fire Origin and Cause Supplemental Incident Report</b> (Reference FSH 5309.11, Chapter 20)				Incident Number	CO-SJF-000998									
					Incident Date	10/6/2012									
<b>LOCATION</b>															
Fire Name	Dispatch #	Account Code	Region	Forest	District	State	County								
Goblin	O-1	P2G9HJ	02	San Juan	Columbine	CO	La Plata								
Origin Location: geographical landmarks, highways, roads, trails, etc.			Township	Range	Section	¼ Sec	Base Meridian								
Alongside D&SNG rail tracks 3 miles south of Needleton water tank @ MP 481.2			39N	8W	26	NM, CO									
			Latitude (D - M' - S")			Longitude (D - M' - S")									
			37	37	12N	107	42	00W							
<b>JURISDICTION</b>															
USFS Only	Unified: Identify Other Agency		Lead Origin & Cause Investigator			Cost > 40K	Injuries								
X			(b) (6), (b) (7)(C)			?	0								
<b>EVENT SEQUENCE</b>															
Estimated Time of Ignition				Time Fire Reported				Time Origin Protected				Time Origin Released			
Mo.	Day	Year	HHMM	Mo.	Day	Year	HHMM	Mo.	Day	Year	HHMM	Mo.	Day	Year	HHMM
10	06	2012	1130	10	06	2012	1145	10	07	2012	1115	05	28	2012	1530
Who			Who			Who			Who						
			(b) (6), (b) (7)(C)			(b) (6), (b) (7)(C)			(b) (6), (b) (7)(C)						
<b>FIRE BEHAVIOR</b>															
Estimated Acres	Fuel Type @ Origin Material First Ignited		Weather Observer (On Scene)		Date	Time	Temp	RH	Wind Dir	Wind Speed					
40.0	Leaf litter		Fire investigator		10/7	1145	55	8%	SE	1-3					
Slope	Aspect: N E S W	Elevation	Weather Station		Date	Time	Temp	RH	Wind Dir	Wind Speed					
30-70+	SSE	8,030'	Big Bear Park		10/6	1200	49	N/A	WSW	26 max					
<b>CAUSE DETERMINATION CODE: (I) = INCLUDED, (E) = EXCLUDED, (P) = PARTIALLY-INCLUDED/EXCLUDED (EXPLAIN IN NARRATIVE)</b>															
E	Lightning	(Detection Method)													
No lightning showing on the Lightning Activity Maps for the previous few days															
E	Equipment Use	(Exhaust, Brake Shoe, Mechanical, Friction, Aircraft, Vehicle Fire, Other)													
No equipment other than train in this area															
E	Smoking	(Tobacco, Other)													
No evidence of people previously using this area; access is very limited															
E	Campfire	(Cooking, Warming, Ceremonial, Other)													
No evidence of campfire															
E	Debris Burning	(Land, Slash, Refuse, Other)													
No evidence															
I	Railroad	(Ignition Activities Associated with Railroad Companies)													
27' from CL of rail road tracks in fuel type conducive for fire start from exhaust cinder															
E	Incendiary	(Ignition Component / Material First Ignited)													
No evidence present indicating an incendiary device															
E	Children	(Ignition Activities Associated with Children; 12- years and younger)													
No evidence of children; very limited access to this area															
E	Miscellaneous	(Blasting, Structure, Fireworks, Welding, Cutting, Grinding, Pest Control, Power Line, Glass, Target Shooting, Spontaneous Combustion, Other)													
Railroad is only use and access to this area. No track maintenance was being undertaken.															
Cause Determined: State brief reason & explain in the narrative						Cause Undetermined: State brief reason & explain in the narrative									
Fire indicators show fire started approximately 27' from tracks, along a section of track where the morning train would be chugging along on an uphill grade on the tracks, in sunny, flat, leaf litter covered area adjacent to tracks.															
PREPARED BY	(b) (6), (b) (7)(C)		Date	10/10/12	Submitted to	(b) (6), (b) (7)(C)		Date	10/11/12						

ATTACHMENTS - IF INCLUDED	LE Incident Report	<input type="checkbox"/>	Supplemental Reports	<input checked="" type="checkbox"/>	Interviews	<input type="checkbox"/>	Statements	<input type="checkbox"/>
	Fire Stat Report	<input type="checkbox"/>	Sketches / Diagrams	<input checked="" type="checkbox"/>	Maps	<input type="checkbox"/>	Photographs	<input checked="" type="checkbox"/>
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(CODE: S – SUBJECT, W – WITNESS, V – VICTIM, RP – REPORTING PARTY, O – OTHER)								
Name (Last, First, Middle) RP			Alias	DOB	Race	Gender		
(b) (6), (b) (7)								
Address (Home)			Phone (Home)	Hair Color	Eye Color	SSN		
Address (Business) (Tax Identification Number if Required)			Phone (Work)	Height	Weight	License / ID		
Durango & Silverton Narrow Gauge Railroad								
Name (Last, First, Middle) O			Alias	DOB	Race	Gender		
(b) (6), (b) (7)								
Address (Home)			Phone (Home)	Hair Color	Eye Color	SSN		
Address (Business) (Tax Identification Number if Required)			Phone (Work)	Height	Weight	License / ID		
Name (Last, First, Middle)			Alias	DOB	Race	Gender		
Address (Home)			Phone (Home)	Hair Color	Eye Color	SSN		
Address (Business) (Tax Identification Number if Required)			Phone (Work)	Height	Weight	License / ID		
VEHICLE INFORMATION (CODE: D – DAMAGED, E – EVIDENCE, I – IMPOUND, S – SUBJECT W – WITNESS, O – OTHER)								
	License Number	State	VIN	Year	Make	Style	Other Information	
	License Number	State	VIN	Year	Make	Style	Other Information	
	License Number	State	VIN	Year	Make	Style	Other Information	
	License Number	State	VIN	Year	Make	Style	Other Information	
EVIDENCE / PROPERTY INFORMATION (CODE: D – DAMAGED, E – EVIDENCE, I – IMPOUND, O – OTHER)								
Code	Description			Disposition	Date	Time	Who	
INSURANCE INFORMATION (HOME, AUTO, LIABILITY, OTHER)								
Insurance Company		Policy Number	Insurance Agent	Address		Phone Number		
PREPARED BY		DATE	SUBMITTED TO		DATE			
(b) (6), (b) (7)		10/10/12	(b) (6), (b) (7)(C)		10/11/12			

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<b>SYNOPSIS (DATE, FIRE NAME, ESTIMATED ACRES, LOCATION, JURISDICTION); (ESTIMATED COST, DAMAGE; PROPERTY / RESOURCE); (CAUSE; DETERMINED / UNDETERMINED)</b>			
<p>On Saturday October 6, 2012 a wildfire was reported at a location in the San Juan National Forest, approximately 3 miles south of the Needleton water tank along the Durango and Silverton Narrow Gauge Railroad (DSNGRR) tracks, in La Plata County, CO at MP 481.2. This fire was named the Goblin Fire and was estimated at approximately 40 acres when contained. The estimated cost is unknown. The extent of damage is burned vegetation possibly leading to soil erosion due to steep slopes. The cause of the fire was determined to be from an exhaust cinder landing on the ground surface in sun dried grasses, approximately 27' from the center line of the tracks.</p>			
<b>DETAILS OF INVESTIGATION: (INITIAL REPORT, INITIAL ATTACK, INITIAL INVESTIGATION, FIRE BEHAVIOR ANALYSIS, STATEMENTS, ORIGIN EXAMINATION, CAUSE DETERMINATION)</b>			
<p>The fire was discovered by (b) (6), (b) (7) , an employee of the DSNGRR as he patrolled the track looking for obstacles or fires. When he discovered this fire he called for the DSNGRR fire crew to assist, but the fire was spreading rapidly do to high winds, steep terrain, and lots of autumn season leaf litter on the ground. This fire is believed to have been started by the second train (Engine #482) passing this area heading to Silverton, at approximately a 11:30 AM. (b) (6), (b) (7) spotted the fire around 11:45 AM and reported it to the D&amp;SNG RR dispatch. The first northbound train to Silverton of the day passes this point at around 11:00, but the chase car did not see a fire.</p> <p>The initial report of this fire was received at Durango Interagency Fire Dispatch at 1747 on 10/6/12. The Columbine RD dispatched (b) (6), (b) (7)(C) as the Incident Commander to the scene. A number of DSNG RR employees has been on-scene all afternoon trying to contain the fire and had dropped some standing dead aspens onto the origin site. With the fire cause suspected of being the DSNGRR train engine a Fire Investigator was requested to determine the cause and origin.</p> <p>Weather was taken by the Fire Investigator the following day. Weather readings for the Big Bear Park RAWs station, located in Hermosa, for 10/6/12 are attached. No recordable precipitation had been received at that RAWs station since 9/24/12, so the area was very dry and had been receiving high winds.</p> <p>Fire Investigator, (b) (6), (b) (7) , reported to the fire on 10/7 at 1115 due to transportation issues. The INVf site observations were: fire area aspect ESE with slope of 30 to 65 degrees. The vegetation along the tracks is grass, aspen, and bearberry, with Gambel oak, Doug fir, Rocky Mtn juniper, Ponderosa Pine and aspen higher upslope. Two reference points for the investigation were established at the north and south edges of the fire perimeter adjacent to the tracks where the fire line began..</p> <p>The fire investigator has determined that the fire started in a relatively flat, dry, area covered in aspen leaf litter adjacent to the railroad tracks, and spread along fingers of vegetation growing between rocks, and moved upslope aided by the winds from the south being funneled along the river valley and rail corridor. Due to the slope and aspect the area of origin had been sun dried and warmed prior to the train passing this area. By 1115 this area was receiving full sun, according to observations by the fire investigator. The fire crept upslope in the open chutes/fingers where dead leaf litter had accumulated and into an area of young oaks with dry leaf litter beneath. However, the fire remained on the ground surface consuming grass and leaf litter and finding fuel wherever possible between areas of rocky outcrops and heavy talus rock on the steep slope. When the fire reached the juniper/doug fir/ponderosa trees further upslope it consumed the needle cast and downed branches started to burn the trees at the base of their trunks , but continued to move upslope between the rocks and staying mainly low to the ground.</p> <p>The fire burned some of the heavy dead fuels on the ground. Pockets of dead aspen leaves beneath live trees were consumed by fire, but the fire mainly crept along and burned the surface fuels and base areas of conifer trunks. The fire spread indicators showed the fire progression as upslope due to the winds from the SSE winds, steep slopes (30-65 degrees), and the sun dried fine fuels. There was evidence of lateral fire spread through the leaf litter/needle cast. There was little evidence that the fire backed away from the origin area due to the presence of the bearberry.</p> <p>The Area of Origin is determined to be approximately 27 feet from the centerline of the railroad track. This area had been disturbed by suppression activities, including water application and felling of standing dead aspens that fell over the suspected area of origin due to high winds at the time of felling. This area is relatively flat, with some grass cover and lots of dead aspen leaf litter. The area is in full</p>			

sun in the AM, allowing fuels to dry before the trains to Silverton passes by. The autumn leaf litter, along with winds pushing upslope from the southeast, created receptive conditions for an exhaust ember from the steam engine smokestack to settle on and start burning the grasses.

Evidence was seen by the fire investigator of previous burns in this area, although it appears to have been quite a few years ago. .

**SUMMARY:** (CAUSE DETERMINED / UNDETERMINED) (CAUSES INCLUDED / EXCLUDED OR PARTIALLY – INCLUDED / EXCLUDED) (SUBJECTS KNOWN / UNKNOWN) (OTHER ACTIONS)

The Goblin Fire has not yet been contained and is estimated at 325 acres. Burn-out operations are currently underway.. The approximate point of origin was GPS'ed at N37 ° 36' 57.9" by W 107° 43' 19.0", elevation 8,030' (accuracy to within 50 feet). The cause is determined to be an exhaust ember, from the steam engine smoke stack, falling and igniting dry grasses approximately 27' from the tracks. The fire is not being actively staffed for suppression due to concerns for firefighter safety from steep terrain.

PREPARED BY	DATE	SUBMITTED TO	DATE
(b) (6), (b) (7)	10/10/12	(b) (6), (b) (7)(C)	10/11/12

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Title <b>GoblinFire Origin and Cause scene sketch</b>							
Latitude <b>37      36      59N</b>		Longitude <b>107      43      18W</b>		Map Key			
INCLUDE: STAND= SCALE, TITLE, AUTHOR, NORTH ARROW, DATE AND TIME							
Empty area for sketch							
SCALE <b>NTS</b>		AUTHOR <b>KIM ROUND</b>		DATE <b>10/7/12</b>		TIME <b>1400</b>	
PREPARED BY <b>(b) (6), (b) (7)(C)</b>				DATE <b>10/10/12</b>		SUBMITTED TO <b>(b) (6), (b) (7)(C)</b>	
						DATE <b>10/11/12</b>	

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PHOTOGRAPHIC LOG					
CASE NUMBER		PHOTOGRAPHER	(b) (6), (b) (7)(C)	DATE	10/7/12
CAMERA	Sony Cybershot		FILM	digital	
No.	DESCRIPTION	MAP NUMBER			
DSC-00808	Area adjacent to tracks with downed tree and burned leaf litter				
DSC-00809	Base of trees showing burned leaf litter, adjacent to tracks				
DSC-00810	Consumed leaf litter at base of trees with scattered talus rock				
DSC-00811	railroad firefighters at flat area adjacent to tracks				
DSC-00812	burned pockets of dead leaf litter within green grasses & forbes				
DSC-00813	pockets of dead leaf litter				
DSC-00814	looking upslope: aspens into low oak brush and upslope to conifers				
DSC-00815	burning tree stump surrounded by burned leaf litter and talus rock	1			
DSC-00816	White char on upslope side of ponderosa pine trunk indicating flame	2			
DSC-00817	Down slope side = light burn, upslope heavy burn				
DSC-00818	low burning stump surrounded by burned dead/down				
DSC-00819	scattered pockets of burned surface fuels and talus rocks				
DSC-00820	steep slopes created long flame lengths with low surface fuels				
DSC-00821	Ponderosa pine needle discoloration from flames & heat				
DSC-00822	burned trees falling down the steep slope				
DSC-00823	needle cast burned under dead juniper with burning base				
DSC-00824	same ^ juniper with active stump fire				
DSC-00825	Heavily burned surface fuels and tree base				
DSC-00826	representative photo of heavily vegetated area and steep slopes				
DSC-00827	more ^				
DSC-00828	large ponderosa stump burning and heavy talus slope	3			
DSC-00829	general origin area: backing indicator & lateral burning on trunks				
DSC-00830	advancing fire indicators showing trunk char and burned surface fuels				
DSC-00831	general origin area relatively flat				
DSC-00832	felled aspen over general origin area w/ unburned bearberry	4			
DSC-00833	orange flag showing suspected area of origin at base of old stump				