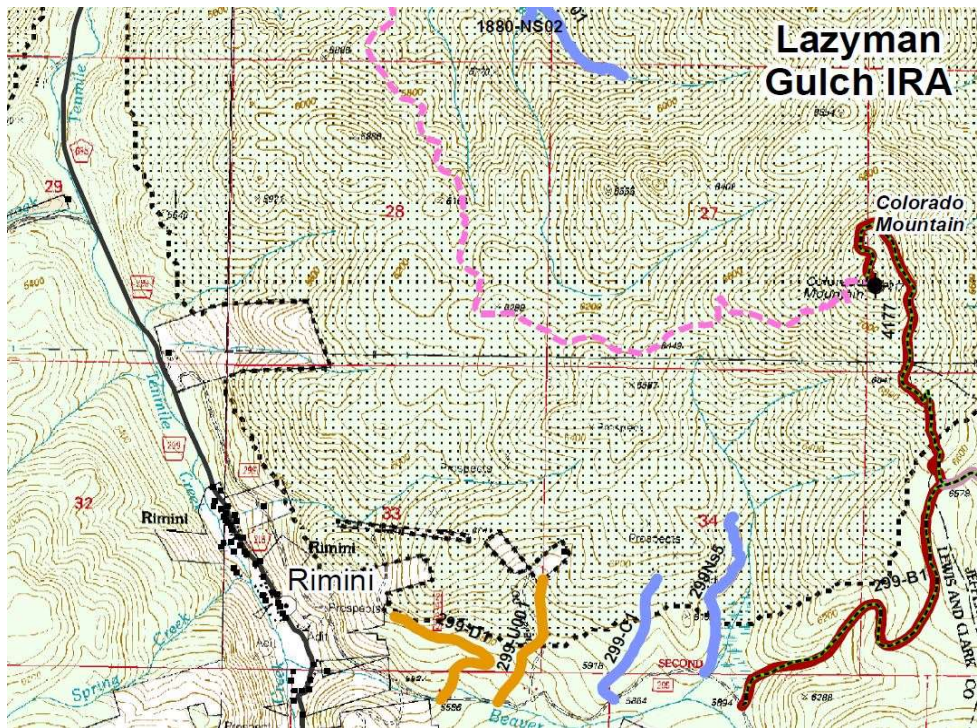


## #299-NS05, 299-C1, 299-U001 (Beaver Creek)



### Discussion of #299 in Tenmile record/GIS Data/ROD

**#299 series roads** are referred to an “existing” route in Tenmile ROD (Tenmile-009185).

**#299 series roads** are not an existing National Forest Transportation System road (Tenmile-007052, Table 304).

**#299 series roads** are not listed as an unauthorized, user-created, or non-system existing road.

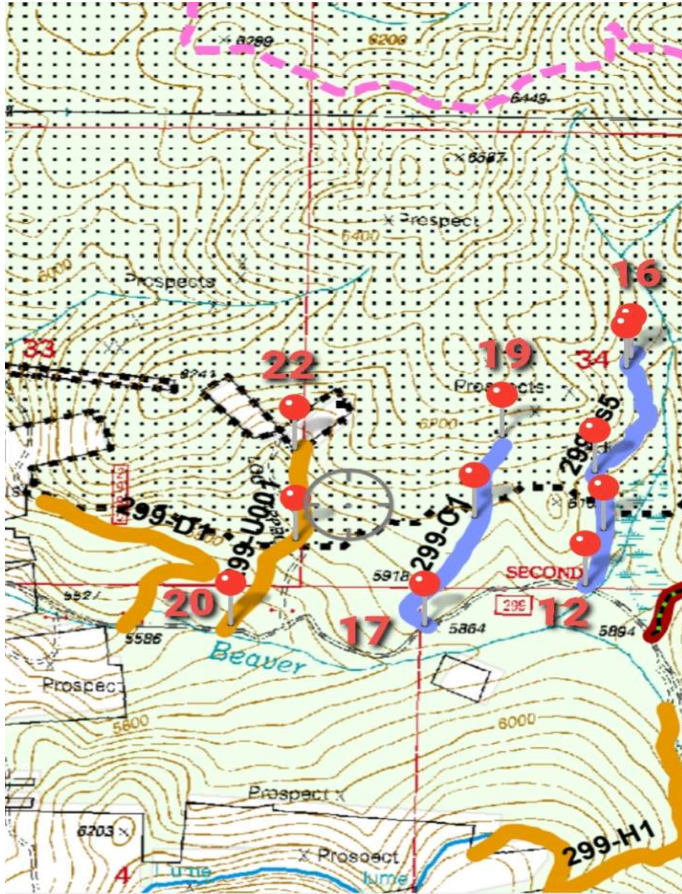
**#299 series roads** are currently and will continue to be used for mechanized logging. Forest Service maps reveal #4626-001 will be used by mechanized equipment to access treatment Units in section 8, including Units 238, 239, 229 and possibly 207 and 217. Compare Transportation Plan maps, Tenmile-10705 (Alt. 4) and Tenmile-009522 (ROD) with Tenmile-009523 (map of units). Units 238 and 239 will utilize “mechanized” and “ground-based” logging systems (Tenmile-009258); GIS Table at \*\*. Unit 229 will also use a “mechanized” logging system. Tenmile-009257. In the FEIS, Forest Service says “mechanized” equipment to be used “could range from tracked chippers and skid steers, to larger machines such as tracked feller-bunchers. Tenmile-006125; see also Doc. 65 at 26 (counsel noting that majority of mechanized use in IRAs will use track forwarders or UTVs).

**#299-C1 and #299-NS05** will be subject to closure method 4 (Obliteration). Closure method 4 Obliteration means #299-C1 and #299-NS05 “will be removed from Transportation System and obliterated, including recontouring where appropriate, decompaction/ripping, revegetation, culvert removal, re-establishment of natural drainage contours.” Tenmile-009522; Tenmile-015434

**#299-U001** will be subject to closure method 1 (Barrier only). Closure method 1 Barrier Only means #299-U001 .....

## SURVEY OF #299 Series Roads

Waypoints 012 – 016 (#299-NS05), 017 – 019 (#299-C1), 020 – 022 (#299-U001)



### METHODS:

Avenza map app was used to follow georeferenced USFS PDF map of the “existing road”, which does not exist.

Google Earth was used to map waypoints on a 3-dimensional satellite image of the “existing road” and surrounding terrain (below).

Waypoints were taken approximately every 400 yards (420 steps). At #299-NS05, five waypoints and 10 photos were taken and filed. At #299-C1 and #299-U001, three waypoints and six photos were taken and filed at each road. At least one photo from each waypoint is displayed below.

Photos (if multiple) from each waypoint are displayed on one page.

**Name of Surveyor:** Camie Westfall

**Date Surveyed:** 5/17/2020

**GPS Model:** Garmin GPS Map64s

**Datum:** WGS84

**GPS Position Format:** hddd.ddddd°

**Mapping Apps:** Avenza was used to follow geo-referenced FS Tenmile-South Helena Project Alternative 4 Transportation, Trails, and Road Closure/Obliteration map (Tenmile-10705) which for the purposes of documenting the “existing roads” parrots the ROD map (but includes road numbers and IRA boundary). I also used the Google Earth 3D waypoint map.

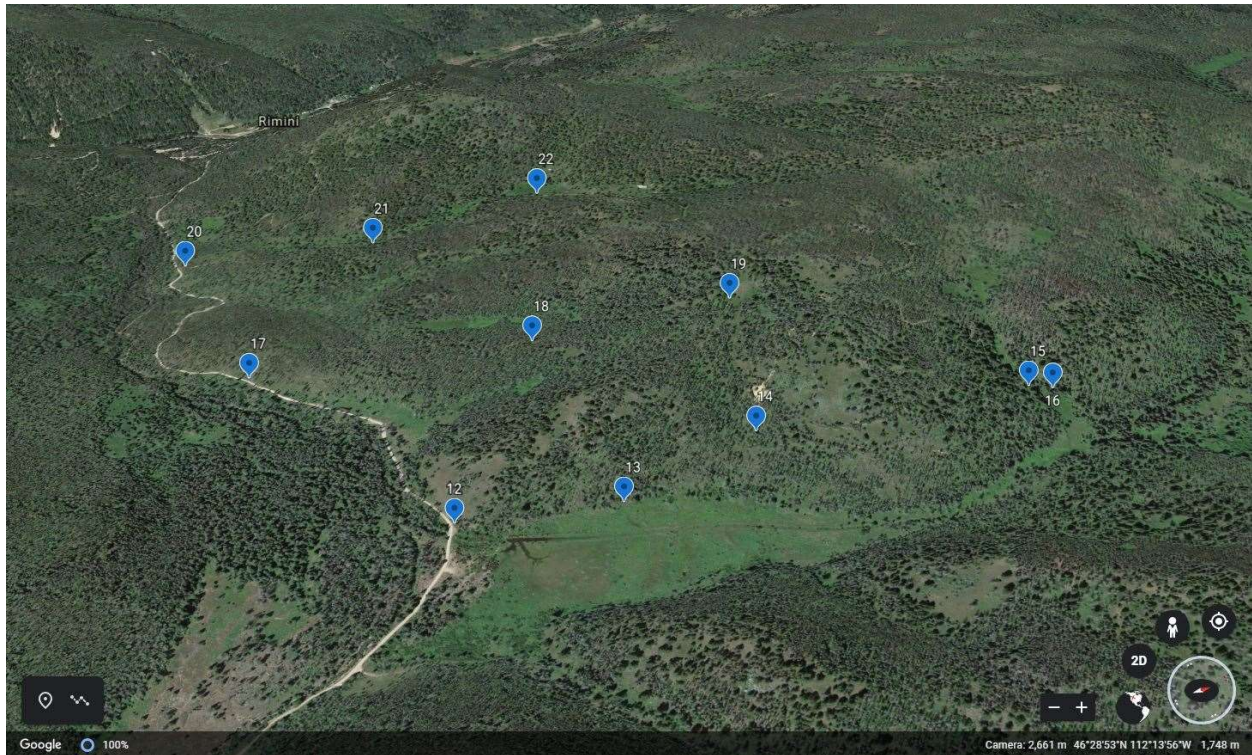
**Time Spent:** 3 hours

## Survey (Waypoints, photos, and narrative)

**#299-NS05:** The road is blocked with large rocks at the junction of Chessman Road. It was used for a recent timber harvest. Evidence of recent road use and timber harvest stop at the Tenmile IRA boundary. At the IRA boundary, the road is blocked with downed trees and conifer regeneration. Within the IRA, large trees (>15 DBH were marked during timber surveys) and it is difficult to find the road bed due to wind blown deadfall, herbaceous forest undergrowth, and regeneration of Douglas fir, lodgepole pine, and subalpine fir. The road crosses a creek/spring with current running water and soil saturation. The wetland system to the east of the road has survey stakes and marking on trees throughout. Only Lewis and Clark county listed noxious weed, common mullein (*Verbascum thapsus*), was observed near the road bed during field surveys. The road width is about 15-18 feet wide within the recent timber harvest, and within the IRA, the road gradually narrows from about 15 to 10 feet wide.

**#299-C1:** The road is not gated or marked in any way at the junction of Chessman Road. It was used for a recent timber harvest and is difficult to distinguish where the road bed is due because it is covered in woody debris. Evidence of timber harvest ceases just before Tenmile IRA boundary. Some marked trees (mainly >15 inch DBH Douglas fir) continue into IRA. The "road" is completely non-existent once inside the IRA due to blown down dead fall and conifer and forest understory regeneration. According to the maps, it seems the road ends just before an abandoned mining cabin site. For use of the "road", once inside the IRA, tree removal will be a necessary improvement, as there is currently no distinguishable road bed. Live tree removal of Douglas fir ranging from 6 to >15 inch DBH, lodgepole pine ranging 8 to 12 inch DBH, and subalpine fir ranging from 6 to 8 inch DBH as well as 1 to 4 foot tall Douglas fir and lodgepole pine seedlings/saplings scattered. Only Lewis and Clark county listed noxious weed, common mullein (*Verbascum thapsus*), was observed near the road bed during field surveys. The road width is about 20-25 feet wide within the recent timber harvest, but the road bed is non-existent once in the IRA.

**#299-U001:** The two-track road is gated at the junction of Chessman Road. It was used for a recent timber harvest and is covered in woody debris. Timber harvest ceases, but two track continues into Tenmile IRA. Marked trees continue along two-track in the IRA. Two track appears to be periodically used and maintained for access to private land parcels located within the IRA. The roadway is vegetated with grass and forb species and there is no conifer regeneration in the road bed; some winter blow down has occurred across the road. Near the boundary of the IRA there is some standing water and soil saturation due to a spring. There is a primitive bridge crossing over a wet area within the IRA (located at 46.48362, -112.23028). The private land parcels appear to have at least three log cabin structures as well as other buildings. No noxious weeds were observed during field surveys. The road width is about 12-15 feet at the junction of Chessman Road and it tapers to about 10 feet wide at the Tenmile IRA boundary.



#299-NS05 (Waypoints 012-016), #299-C1 (Waypoints 017-019), and #299-U001 (Waypoints 020 – 022)

Google Earth screen-shot of Chessman Road and Beaver Creek area, #299-NS05, #299-C1, and #299-U001 in Tenmile IRA. The bottom center shows the wetland meadow which connects to Beaver Creek. Chessman Road, which follows Beaver Creek, is on the left side of the image where Waypoints 12, 17, and 20 connect to each #299 series road. Rimini Road and the town of Rimini can be seen in the top left of the image.

**WAYPOINTS: 012 – 016 (#299-NS05), 017 – 019 (#299-C1), 020 – 022 (#299-U001)**

Waypoint Name	Latitude	Longitude	Date and Time
WAYPOINT 012	46.48511	-112.21892	17-MAY-2020 15:00
WAYPOINT 013	46.48689	-112.21825	17-MAY-2020 15:08
WAYPOINT 014	46.48872	-112.21864	17-MAY-2020 15:30
WAYPOINT 015	46.49205	-112.21751	17-MAY-2020 15:55
WAYPOINT 016	46.49234	-112.21734	17-MAY-2020 16:15
WAYPOINT 017	46.48379	-112.22495	17-MAY-2020 16:45
WAYPOINT 018	46.48724	-112.22316	17-MAY-2020 17:00
WAYPOINT 019	46.48981	-112.22215	17-MAY-2020 17:15
WAYPOINT 020	46.48373	-112.23227	17-MAY-2020 17:50
WAYPOINT 021	46.48645	-112.22999	17-MAY-2020 18:10
WAYPOINT 022	46.48932	-112.22998	17-MAY-2020 18:20

**PHOTOS TAKEN AT EACH WAYPOINT**



WAYPOINT 012 – Junction of Chessman road and #299-NS05. SW photo direction.



WAYPOINT 012 – Start of 299-NS05. Large rock road blocks used. Road development with woody debris due to recent timber harvest, NE photo direction.



WAYPOINT 013 – Road used for recent timber harvest on right, south photo direction, 15 foot road width.



WAYPOINT 013 – Boundary of Tenmile IRA indicated by marked trees and blocked by downed trees, north photo direction.



WAYPOINT 014 – Road bed barely distinguishable due to wind-blown deadfall and lodgepole pine regeneration and herbaceous undergrowth, south photo direction.



WAYPOINT 014 – Road bed barely distinguishable due to wind-blown deadfall and lodgepole pine regeneration and herbaceous undergrowth, north photo direction.



WAYPOINT 015 – Old road bed about 12 feet wide, some conifer seedling/sapling regeneration, SE photo direction.



WAYPOINT 015 – Creek and groundwater flows with sedge and Douglas fir and subalpine fir regeneration, road significantly narrows after creek, NW photo direction.



WAYPOINT 016 – End of #299-NS05. Road bed extremely difficult to see due to dead fall and Douglas fir and subalpine fir regeneration, SW photo direction.



WAYPOINT 016 - End of #299-NS05. Road bed extremely difficult to see due to wall of dead fall and Douglas fir and subalpine fir regeneration, NE photo direction.



WAYPOINT 017 – Junction with Chessman Road and #299-C1, east photo direction.



WAYPOINT 017 – Start of #299-C1. Logging road used for recent timber harvest, west photo direction.



WAYPOINT 018 - Logging road used for recent timber harvest, SW photo direction, road bed difficult to distinguish due to woody debris.



WAYPOINT 018 - Logging road used for recent timber harvest, NE photo direction, near Tenmile IRA boundary, road bed difficult to distinguish due to woody debris.



WAYPOINT 019 – End of #299-C1. Road bed or trail is indistinguishable due to forest regeneration and herbaceous undergrowth, SW photo direction.



WAYPOINT 019 – End of #299-C1. Road bed or trail is indistinguishable due to forest regeneration and herbaceous undergrowth. According to map, “road” ends at abandoned mining cabin site in small clearing, NE photo direction.



WAYPOINT 020 – Gated at junction of Chessman Road and #299-U001, SW photo direction, rocks and woody debris on road bed due to recent timber harvest.



WAYPOINT 020 – Start of #299-C1. Two-track road going into recent timber harvest, NE photo direction, rocks and woody debris due to recent timber harvest.



WAYPOINT 021 – Two-track near start of Tenmile IRA boundary, SW photo direction, some soil saturation and rocks.



WAYPOINT 021 – Two-track near start of Tenmile IRA boundary, NE photo direction, some rocks.



WAYPOINT 022 – End of #299-U001. Two-track used periodically and maintained for private property access, SW photo direction.



WAYPOINT 022 – End of #299-U001. Two-track continues onto private property, NE photo direction.

Field Form

HELENA HUNTERS & ANGLERS FIELD ANALYSIS OF TSH PROJECT TRANSPORT/RD CLOSURE MAP										Technician: C. Westfall			
Route Location: Crossman Rd/Beaver Creek		Route# (from map): 299-N505		Waypoint every 300'		300-400 (yards)		PG 1 of 1		Lazyman Jericho (circle)			
Date: 5/17/2020	Time Out: 15:00	Time In: 16:30	Duration: 1.5 hr	GPS Model/ID: Garmin GPS Map 64S		Datum: WGS 84		[Slope: flat, gentle, moderate, steep]					
Comments: Eg: Improvements needed for heavy equipment? Big rocks, (Tree removal) Side slope (vehicle would roll); Sharp turns										F	G	M	S
Field Tools: GPS, map, camera, clip board, field forms, compass, pencils, batteries, personal gear (sunglasses, hat)										DWB		mi	
Time	Wpt	Steps	Photo#	Description (of photo)	Aspect	Width'	Slope	Water	Comments	Lat-Long/UTM	Tree Removal		
15:00	012	0	St016	Junction of Crossman Rd & 299 N505	Start	195°	15-18'	F	N		46.48511, -112.21732		
			St017	Road starts w/ Road block	Start	15°	15-18'	F	N				
15:08	013	200	St018	Road used fairly recently	Loc timber harvest on	180°	15'	F	N	G	46.48889, -112.21732	825	
			St019	Near IRA boundary - mostly road used into IRA	Slope to W	0°	15'	F	N	G	46.48889, -112.21732	825	
15:30	014	420	St020	Road bed barely distinguishable due to dead fall & numerous gnats	Bladed and downed	180°	12'	G	N		46.48572, -112.21732	804	
			St021	"	Large amounts of in situ deadfall	0°	12'	G	N		46.48572, -112.21732	804	
15:55	015	840	St022	Road bed, numerous gnats w/ deadfall	Sections of herbaceous understory	135°	12'	G	N		46.48572, -112.21732	804	
			St023	Creek & groundwater flow	- road sign, recently removed	315°	12'	G	N		46.48572, -112.21732	804	
16:15	016	1080	St024	Moss on dead fall & DF, SRF regen	rd bed then diff	200°	10-12'	G	N		46.48572, -112.21732	804	
			St025	wall of SRF, rd bed barely distinguishable	- Ends	20°	10-12'	G	N		46.48572, -112.21732	804	

- Road goes through recent timber harvest at beginning until it reaches IRA boundary.
- At IRA boundary road is blocked with downed trees and conifer regeneration.
- In IRA, there is much deadfall and conifer regen. Road bed is difficult to find at times.
- Road crosses creek with running water and groundwater saturation.
- Large, >15 DBH trees are marked within IRA.
- Wetland system to past of road has survey stakes and marks throughout.

with timber  
46.47851  
-112.21520  
DBH 0.5"  
elev 5905 ft

rod tail hawk  
elk sign  
call ground 200

Tree Removal

LP regen 240?

825 Sunday No  
and make  
M sections 4 &  
MSL

804 Herbaceous  
undergrowth  
deadfall, extensive  
in situ deadfall  
See rd bed  
large DF near  
Point 715 ft  
LP 240 → 210 ft  
SAP #10 → 200 ft  
SAP

DF 10 ft → 200 ft

**HELENA HUNTERS & ANGLERS FIELD ANALYSIS OF TSH PROJECT TRANSPORT/RD CLOSURE MAP**

Technician: C. Westfall

Route Location: Chassman Rd / Beaver Creek Route# (from map): 299-C1 Lazyman Jericho (circle)

Date: 5/17/2020 Time Out: 16:45 Time In: 17:30 Duration: 0:45 Waypoint every 300' 300-400 yds Pg 1 of 1

GPS Model/ID: Garmin GPS Map 64s Datum: WGS 84 [Slope: flat, gentle, moderate, steep]

Comments: Eg: Improvements needed for heavy equipment? Big rocks; tree removal; Side slope (vehicle would roll); Sharp turns

Field Tools: GPS, map, camera, clip board, field forms, compass, pencils, batteries, personal gear (sunglasses, hat)

0.600 mi

Time	Wpt	Steps	Photo#	Description (of photo)	Aspect	Width'	Slope	Water	Comments	Lat-Long/UTM	Tree Removal
16:45	017	0	S626	Junction w/ Chassman? 299-C1 - Skirt	100°	20'	G	N	Bare ground under debris	46.48379, -112.2	22495
			S627	Logging rd used in 2019 for clearcut <sup>100' x 100'</sup>	220°	20'	G	N	Bare ground under debris		
17:00	018	500	S628	Logging rd used in 2019 for harvest	200°	25'	G	N	Bare ground under debris	46.48324, -112.2	22320
			S629	Down hauler & debris	20°	25'	G	N	Bare ground under debris		
17:15	019	900	S630	Completely unrecognizable as a rd? <sup>600'</sup>	210°	1'?	G	N	Bare ground, <sup>intercept</sup> <sup>debris</sup>	46.48381, -112.2	2215
			S631	Old mining cabin site - refuse dump, <sup>600'</sup> <sup>600'</sup>	30°	0'	G	N	mineral, <sup>debris</sup> <sup>debris</sup>		Tree removed
				"Road" is difficult to see through timber harvest due to woody debris.							
				"Road" is non-existent once in IRA. Possibly, it once went to an abandoned mining cabin but has since been completely overgrown w/ mature (like trees) forest undergrowth.							

rolled ground -  
drainage

• Timber harvest stops before IRA boundary  
• Large >15 DBH  
Down for mark

2215 DE 114-248  
5144-248  
CP# 2 28000  
CP# 3241  
DE 4 461-211

spring &  
old cabin &  
refuse pit at  
46.48634,  
-112.2202

**HELENA HUNTERS & ANGLERS FIELD ANALYSIS OF TSH PROJECT TRANSPORTION/RD CLOSURE MAP** Technician: *Cristina*

Route Location: *Chessman Rd/Beaver Creek* Route# (from map): *099-U001* *Lazyman Jericho* (circle)

Date: *5/17/2020* Time Out: *17:50* Time In: *18:40* Duration: *0:50* Waypoint every *300\*-400 yds* Pg *1* of *1*

GPS Model/ID: *Trimble GPS Maps 645* Datum: *WGS 84* [Slope: flat, gentle, moderate, steep]

Comments: Eg: Improvements needed for heavy equipment? Big rocks; Tree removal; Side slope (vehicle would roll); Sharp turns

Field Tools: *GPS, map, camera, clip board, field forms, compass, pencils, batteries, personal gear (sunglasses, hat)*

*Deadfall sign*

Time	Wpt	Steps	Photo#	Description (of photo)	Aspect	Width'	Slope	Water	Comments	Lat-Long/UTM
<i>17:50</i>	<i>020</i>	<i>0</i>	<i>5632</i>	<i>Gated FS road at junction w/ Chessman Rd</i>	<i>200°</i>	<i>12-15'</i>	<i>M</i>	<i>N</i>		<i>46.48373, -112.23</i>
			<i>5633</i>	<i>Two track road going into 2019 timber harvest</i>	<i>80°</i>	<i>12-15'</i>	<i>M</i>	<i>N</i>	<i>Rocks &amp; woody debris</i>	
<i>18:10</i>	<i>021</i>		<i>5634</i>	<i>Two track near start of IFA boundary</i>	<i>230°</i>	<i>8-10'</i>	<i>M</i>	<i>Y</i>	<i>Rocky, talus, BEERFF</i>	<i>46.48645, -112.229</i>
			<i>5635</i>	<i>Two track - used periodically - no trees, some grass/trees</i>	<i>50°</i>	<i>8-10'</i>	<i>M</i>	<i>Y</i>	<i>Grass, some BEERFF</i>	
<i>18:20</i>	<i>022</i>		<i>5636</i>	<i>Two track - used periodically for private access</i>	<i>210°</i>	<i>8-10'</i>	<i>G</i>	<i>N</i>	<i>Rocky, some BEERFF</i>	<i>46.48302, -112.229</i>
			<i>5637</i>	<i>Two track continues into private property</i>	<i>30°</i>	<i>8-10'</i>	<i>G</i>	<i>N</i>	<i>Grass, some BEERFF</i>	
				<i>Road goes through 2019 timber harvest.</i>						
				<i>Two track continues (harvest stops at IFA boundary).</i>						
				<i>Two track continues into private land parcel w/ 3+ log cabins w/ other buildings. (No trespassing sign) posted.</i>						

*Tree Removal*

*207*

*Some water*

*saturation at IFA boundary*

*from spring*

*Some dead log*

*on rd*

*Log*

*Bridge over*

*wetland/springs*

*46.48302, -112.2*

*022*

*Marked trees*

*along road*

*in IFA*