KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE  9-3-93

CUTTING METHOD  clipper/hand

OBSEVER  Kuennen

SKIDDING METHOD  machine

DISTRICT  Fortine

HAZARD TREATMENT  not done

SALE  Zeller C.

SILVICULTURAL TREATMENT  LTM

Unit No.  11  21A

OPERATION PERIOD  Winter 92-93

356-01-057

COMPACTION(Heavy):  

COMPACTION(Light):  

UNDISTURBED:  

DISPLACED:  

EXCAVATED SKID TRAIL:  

SMZ:  

COMMENTS  Several of heavy + light are from old activities.

No. of transect:  4

Three transects run.

Good looking operation.

<table>
<thead>
<tr>
<th>AMOUNT OF DISTURBANCE</th>
<th>No. of Paces</th>
<th>Per-</th>
<th>No. of Paces</th>
<th>Per-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light, mod.</td>
<td>315</td>
<td>54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undisturbed</td>
<td>260</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>580</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COMPACTION(Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

COMPACTION(Light) - any other area not included in heavy COMPACTION or UNDISTURBED.

UNDISTURBED - no signs of any machinery or skidding activity.

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.

5-93
<table>
<thead>
<tr>
<th>Transect 1</th>
<th>Transect 2</th>
<th>Transect 3</th>
<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
</tr>
<tr>
<td>HEAVY</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LIGHT</td>
<td>60</td>
<td>48</td>
<td>140</td>
<td>58</td>
<td>115</td>
</tr>
<tr>
<td>UNDISTURB</td>
<td>60</td>
<td>48</td>
<td>100</td>
<td>42</td>
<td>100</td>
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<tr>
<td>TOTALS</td>
<td>125</td>
<td>100</td>
<td>240</td>
<td>100</td>
<td>215</td>
</tr>
</tbody>
</table>

DISPLACED

EROSION

PUDDLED

SMZ

ROCK

BURN PILES
**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE DATA FORM**

- **DATE:** 9/3/93
- **CUTTING METHOD:** Skidder/Hand
- **SKIDDING METHOD:** Machine (rubber tire/dura)
- **HAZARD TREATMENT:** Mint Done
- **SILVICULTURAL TREATMENT:** LTM
- **OPERATION PERIOD:** Aug. 93

### COMPACTION (Heavy)
- Heavy disturbance: 90%
- Light, mod. disturbance: 66%
- Undisturbed: 33%

### COMPACTION (Light)
- 36%

### UNDISTURBED
- 55%

### DISPLACED
- 6%

### EXCAVATED SKID TRAIL
- SMZ

### COMMENTS

```
First大腿整alm onorth 9/3 a unit.
New person on dozer ?? Sure heavy handed - press fireline also several
places wp unit. Some of displacement/disturbance unit bust
Apparenly very wet forest end of operation.
Displaced down clear on west side of unit
Not a good looking operation!
```

<table>
<thead>
<tr>
<th>AMOUNT OF DISTURBANCE</th>
<th>No. of Paces</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy disturbance</td>
<td>90</td>
<td>90%</td>
</tr>
<tr>
<td>Light, mod. disturbance</td>
<td>66</td>
<td>66%</td>
</tr>
<tr>
<td>Undisturbed</td>
<td>33</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>193</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Displaced</td>
<td>65</td>
<td>65%</td>
</tr>
</tbody>
</table>

**CONSTRUCTION (HEAVY)** - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

**COMPACTION (LIGHT)** - any other area not included in heavy COMPACTION or UNDISTURBED.

**UNDISTURBED** - no signs of any machinery or skidding activity.

**DISPLACED** - any place soil has been mounded by machinery, also include in heavy or light compaction.

**SMZ** - include within transect if within harvest unit.

5/93
## TRANSECT SUMMARY FORM

<table>
<thead>
<tr>
<th>Transect 1</th>
<th>Transect 2</th>
<th>Transect 3</th>
<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
<td>%</td>
</tr>
<tr>
<td><strong>D HEAVY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>27</td>
<td>9</td>
<td>20</td>
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<td>15</td>
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<tr>
<td>s LIGHT</td>
<td>190</td>
<td>60</td>
<td>190</td>
<td>61</td>
<td>85</td>
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<tr>
<td>u UNDISTURB</td>
<td>93</td>
<td>30</td>
<td>90</td>
<td>32</td>
<td>75</td>
</tr>
<tr>
<td>b</td>
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<td><strong>TOTALS</strong></td>
<td>310</td>
<td>100</td>
<td>286</td>
<td>100</td>
<td>175</td>
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</tbody>
</table>

**DISPLACED**

- EROSION
- PUDDLED
- SMZ
- ROCK
- BURN PILES
**KOOTENAI NATIONAL FOREST**  
**SOIL DISTURBANCE DATA FORM**

**DATE:** 08/26/93  
**CUTTING METHOD:** **Chippers**  
**SKIDDING METHOD:** **Tractor**  
**HAZARD TREATMENT:** **Spot pile, 15 Tone**  
**SILVICULTURAL TREATMENT:** **CC w/R/plant**  
**OPERATION PERIOD:** October 92

| DISTRICT | Troy |
| DISTRICT | Troy |

| **SALE** | Arbo Fire Salvage  
| **Unit No.** | 1  
| **450-02-124** |

| **COMPACTION (Heavy)** | 59 |
| **COMPACTION (Light)** | 190 |
| **UNDISTURBED** | 194 |
| **DISPLACED** | 140 |
| **EXCAVATED SKID TRAIL** | 10 |
| **SMZ** | 30/30 |

| **AMOUNT OF DISTURBANCE** | **Unit 1** |
| | No. of Paces | Percent |
| **Heavy disruption** | 119 | 15 |
| **Light, mod. disturbance** | 337 | 43 |
| **Undisturbed** | 327 | 42 |

| **TOTAL** | 783 100 |
| **Displaced** | 40 5 |

**COMPACTION (Heavy)** - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.  
**COMPACTION (Light)** - any other area not included in heavy COMPACTION or UNDISTURBED.  
**UNDISTURBED** - no signs of any machinery or skidding activity.  
**DISPLACED** - any place soil has been mounded by machinery, also include in heavy or light compaction.  
**SMZ** - include within transect if within harvest unit.

5/93
## TRANSECT SUMMARY FORM

<table>
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<tr>
<th>Transect 1</th>
<th>Transect 2</th>
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<th>Transect 5</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
<td>%</td>
</tr>
<tr>
<td>D HEAVY</td>
<td>59</td>
<td>13</td>
<td>60</td>
<td>18</td>
<td>119</td>
</tr>
<tr>
<td>DIST</td>
<td>190</td>
<td>44</td>
<td>147</td>
<td>43</td>
<td>337</td>
</tr>
<tr>
<td>UNDISTURB</td>
<td>194</td>
<td>44</td>
<td>133</td>
<td>39</td>
<td>327</td>
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<tr>
<td>TOTALS</td>
<td>443</td>
<td>100</td>
<td>340</td>
<td>100</td>
<td>783</td>
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<td>20</td>
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<td>10</td>
<td>3</td>
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<td>EROSION</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>10</td>
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<tr>
<td>Puddled</td>
<td>SMZ</td>
<td>30</td>
<td>7</td>
<td>30</td>
<td>9</td>
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<tr>
<td>ROCK</td>
<td>BURN PILES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE  8. 26. 93  

CUTTING METHOD  Chipper-bottom, hand-top

SKIDDING METHOD  Tractor-bottom, line-top

HAZARD TREATMENT  Spot pile, 15 Tons

SILVICULTURAL TREATMENT  CC w/ R/plant

OPERATION PERIOD  June - July 1993

DISPLACED  

EXCAVATED SKID TRAIL

COMPACTION (Heavy)  

COMPACTION (Light)  

UNDISTURBED  

DISPLACED  

SMZ

COMMENTS  Long, stringy unit. Good water runoff west skid trail. Put logs back into trail. Could have had more if could have trimmed in some - Four transects across unit. Started on right and out.

<table>
<thead>
<tr>
<th>MOUNT OF DISTURBANCE</th>
<th>Unit 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Paces</td>
<td>Percent</td>
<td>No. of Paces</td>
<td>Percent</td>
</tr>
<tr>
<td>Heavy disturbance</td>
<td>50</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Light, mod. disturbance</td>
<td>290</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Undisturbed</td>
<td>279</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>619</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COMPACATION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

COMPACATION (Light) - any other area not included in heavy COMPACATION or UNDISTURBED.

UNDISTURBED - no signs of any machinery or skidding activity.

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.

5/93
**TRANSECT SUMMARY FORM**

<table>
<thead>
<tr>
<th></th>
<th>Transect 1</th>
<th>Transect 2</th>
<th>Transect 3</th>
<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>D HEAVY</td>
<td>31 22</td>
<td>8 7 11 7</td>
<td>0 0</td>
<td></td>
<td></td>
<td>50 8</td>
</tr>
<tr>
<td>S LIGHT</td>
<td>70 50 50</td>
<td>41 69 42 102 53</td>
<td></td>
<td></td>
<td></td>
<td>291 47</td>
</tr>
<tr>
<td>UNDISTURBED</td>
<td>40 28 64</td>
<td>52 85 52 90 47</td>
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<td></td>
<td></td>
<td>279 45</td>
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<tr>
<td>TOTALS</td>
<td>141 100 122</td>
<td>100 165 100 192 100</td>
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<td>620 100</td>
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<td>10 7 10 8 0</td>
<td>0 0 0 0 0 0</td>
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<td></td>
<td></td>
<td>20 3</td>
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<tr>
<td>EROSION</td>
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<td></td>
</tr>
<tr>
<td>PUDDLED</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMZ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BURN FILES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SOIL DISTURBANCE DATA FORM

**KOOTENAI NATIONAL FOREST**

**DATE** 8-26-93

**CUTTING METHOD** clipper

**SKIDDING METHOD** tractor

**HAZARD TREATMENT** spot pile, 15 Ton

**SILVICULTURAL TREATMENT** Cc w/ R/ plants

**OPERATION PERIOD** Summer 93 July-Aug.

### AMOUNT OF DISTURBANCE

<table>
<thead>
<tr>
<th>DISTURBANCE</th>
<th>No. of Paces</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy disturbance</td>
<td>59</td>
<td>12</td>
</tr>
<tr>
<td>Light, mod. disturbance</td>
<td>192</td>
<td>38</td>
</tr>
<tr>
<td>Undisturbed</td>
<td>260</td>
<td>50</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>511</td>
<td>100</td>
</tr>
</tbody>
</table>

**Displaced** 20 4

### COMPACTION

- **Compaction (Heavy)** - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.
- **Compaction (Light)** - any other area not included in heavy compaction or undisturbed.
- **Undisturbed** - no signs of any machinery or skidding activity.
- **Displaced** - any place soil has been mounded by machinery, also include in heavy or light compaction.
- **SMZ** - include within transect if within harvest unit.

---

08/26/1993
Troy - Arbo Fire Salvage
Unit 4
45002175

---

05/93
<table>
<thead>
<tr>
<th>Transect 1</th>
<th>Transect 2</th>
<th>Transect 3</th>
<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
</tr>
<tr>
<td>D HEAVY</td>
<td>30 12</td>
<td></td>
<td>29 11</td>
<td></td>
<td>59 12</td>
</tr>
<tr>
<td>LIGHT</td>
<td>82 33</td>
<td>110 41</td>
<td>192 38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDISTURB</td>
<td>133 55</td>
<td>127 48</td>
<td>260 50</td>
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<tr>
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<td>245 100</td>
<td>266 100</td>
<td>511 100</td>
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<td>PUDDLED</td>
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<td></td>
</tr>
<tr>
<td>SMZ</td>
<td>30 12</td>
<td>30 11</td>
<td>160 12</td>
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<tr>
<td>ROCK</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>BURN PILES</td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 6-7-93

CUTTING METHOD: Hand

SKIDDING METHOD: FMC on snow roads

HAZARD TREATMENT: __________

SILVICULTURAL TREATMENT: __________

DRAINAGE: __________

HAZARD TREATMENT: __________

SILVICULTURAL TREATMENT: __________

OPERATION PERIOD: Winter 92-93

DISTRICT: Troy

SALE: Ten Left Fire Salvage

Unit No.: 10

EXCAVATED SKID TRAIL

SMZ

CHANGES

COMMENTS: Old growth overstory - hot fire removed most of O.H.

Weather shows need to use small amount of surface soil to help pack the snow roads.

Rock: H.W. Large amount of organics on top (planted).

UNIT: 10

<table>
<thead>
<tr>
<th>AMOUNT OF DISTURBANCE</th>
<th>Unit 10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of</td>
</tr>
<tr>
<td></td>
<td>Paces</td>
</tr>
</tbody>
</table>
| Heavy disturbance        | 1      | 0%
| Light, mod. disturbance  | 46     | 20%
| Undisturbed              | 190    | 80%
| TOTAL                    | 237    | 100%

COMPACTION (Heavy) - any place where future vegetative impacted, i.e., skid trails (both heavily and lightly compaction related to soil moisture), landings, and

COMPACTION (Light) - any other area not included in heavy

UNDISTURBED - no signs of any machinery or skidding at

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.
<table>
<thead>
<tr>
<th>Transect</th>
<th>Transect 2</th>
<th>Transect 3</th>
<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
<td>%</td>
<td>Pts.</td>
</tr>
<tr>
<td>D HEAVY</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>LIGHT</td>
<td>20</td>
<td>22</td>
<td>20</td>
<td>17</td>
<td>46</td>
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<tr>
<td>UNDISTURB</td>
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<td>77</td>
<td>98</td>
<td>83</td>
<td>190</td>
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<td>100</td>
<td>118</td>
<td>100</td>
<td>237</td>
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<td>DISPLACED</td>
<td>21</td>
<td>18</td>
<td>21</td>
<td>18</td>
<td>42</td>
</tr>
<tr>
<td>EROSION</td>
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</tr>
<tr>
<td>PUDDLED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMZ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BURN PILES</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
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</table>
**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE DATA FORM**

<table>
<thead>
<tr>
<th>DATE</th>
<th>6.7.93</th>
</tr>
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<tbody>
<tr>
<td>OBSERVER</td>
<td>Miller, Knerr</td>
</tr>
<tr>
<td>DISTRICT</td>
<td>Troy</td>
</tr>
<tr>
<td>SALE</td>
<td>Fourth-Cyclone Fire Salvage</td>
</tr>
<tr>
<td>Unit No.</td>
<td>402-06-126</td>
</tr>
<tr>
<td>ACRE</td>
<td>46</td>
</tr>
</tbody>
</table>

**CUTTING METHOD** Hand

**SKIDDING METHOD** Rubber Tire

**HAZARD TREATMENT**

**SILVICULTURAL TREATMENT**

**OPERATION PERIOD** Summer '93

**TOTAL** (Hand) 70

**COMPACTION (Heavy)**

- Any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

**COMPACTION (Light)**

- Any other area not included in heavy compaction or undisturbed.

**UNDISTURBED**

- No signs of any machinery or skidding activity.

**DISPLACED**

- Any place soil has been mounded by machinery, also include in heavy or light compaction.

**SMZ**

- Include within transect if within harvest unit.

### AMOUNT OF DISTURBANCE

<table>
<thead>
<tr>
<th></th>
<th>Unit 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Per-Paces cent</td>
<td>35 14</td>
</tr>
<tr>
<td>Heavy disturbance</td>
<td>35 14</td>
</tr>
<tr>
<td>Light,mod. disturbance</td>
<td>80 32</td>
</tr>
<tr>
<td>Undisturbed</td>
<td>135 54</td>
</tr>
<tr>
<td>TOTAL</td>
<td>250 100</td>
</tr>
</tbody>
</table>

|          | 70 28 |
| Displaced | 70 28 |

**COMMENTS:**

One transect crossing the middle of the unit parallel to the road. Very dry - most of regrowth gone.

**Rock**

5/93
## Transect Summary Form

<table>
<thead>
<tr>
<th>Transect 1</th>
<th>Transect 2</th>
<th>Transect 3</th>
<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pt's</td>
<td>%</td>
<td>Pt's</td>
<td>%</td>
<td>Pt's</td>
<td>%</td>
</tr>
</tbody>
</table>

### Disturbances

- **D Heavy**
- **S Light**
- **Undisturb**

### Totals

- **Displaced**
- **Erosion**
- **Puddled**
- **SMZ**
- **Rock**
- **Burn Piles**
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE  8.25.93

OBSERVER  Kuennen

DISTRICT  Fisher River Jim

SALE  Butler Ditit  615-03-04Z

Unit No.  2

HAZARD TREATMENT  Broadcast burn (not done yet)

SILVICULTURAL TREATMENT  seedtree

CUTTING METHOD  Hand

SKIDDING METHOD  cable

OPERATION PERIOD  Mid July

LOCATION  South side of unit

South westerly aspect, el.  44850

COMPACTION(Heavy)

COMPACTION(Light)  0

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

UNIT 2

AMOUNT OF DISTURBANCE

<table>
<thead>
<tr>
<th></th>
<th>No. of Paces</th>
<th>Per-</th>
<th>No. of Paces</th>
<th>Per-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy disturbance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Light, mod.</td>
<td>39</td>
<td>8</td>
<td></td>
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<tr>
<td>disturbance</td>
<td>479</td>
<td>92</td>
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<tr>
<td>Undisturbed</td>
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<tr>
<td>TOTAL</td>
<td>518</td>
<td>100</td>
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</tr>
</tbody>
</table>

Displaced    0 0

COMPACTION(Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

COMPACTION(Light) - any other area not included in heavy COMPACTION or UNDISTURBED.

UNDISTURBED - no signs of any machinery or skidding activity.

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.
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<tr>
<th></th>
<th>Transect 1</th>
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<th>Transect 3</th>
<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
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</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 8.25.93

CUTTING METHOD  Hand

OBSERVER  L. Kuennen

SKIDDING METHOD  tractor

DISTRICT  Fisher River

HAZARD TREATMENT  underburn

SALE  Butler Didit

SILVICULTURAL TREATMENT  Seed tree

Unit No.  4A Absord

OPERATION PERIOD  August '93

615-03-045

COMPACTION (Heavy)  25

OPERATION PERIOD  08/25/1993

COMPACTION (Light)  10

Libby - Butler Didit

UNDISTURBED  180

Unit 4A

DISPLACED  0

EXCAVATED SKID TRAIL

SMZ  0

COMMENTS  There is a mantle. DF's bo.

No hazard statement completed yet! Small size of unit possibly contributed to higher heavy disturbance?

<table>
<thead>
<tr>
<th>AMOUNT OF DISTURBANCE</th>
<th>No. of Paces</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy disturbance</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Light,mod. disturbance</td>
<td>102</td>
<td>30</td>
</tr>
<tr>
<td>Undisturbed</td>
<td>206</td>
<td>62</td>
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<tr>
<td>TOTAL</td>
<td>333</td>
<td>100</td>
</tr>
</tbody>
</table>

COMPACATION (Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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SMZ - include within transect if within harvest unit.

5/93
# TRANSECT SUMMARY FORM

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<th>Transect 4</th>
<th>Transect 5</th>
<th>TOTALS</th>
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</table>
**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE DATA FORM**

**DATE** 8/25/93

**OBSERVER** L. Kuennen

**DISTRICT** Fisher River

**SALE** Butler Didit

**Unit No.** 6 & 5

**Operation Period** 6-September, August

**Cutting Method** Clearcut

**Skidding Method** Skidder

**Hazard Treatment** 5 - Limit & Log

**Silvicultural Treatment** 6 - 6C W/ reserves

**Compaction (Heavy)**

**Compaction (Light)**

**Undisturbed**

**Displaced**

**Excavated Skid Trail**

**SMZ**

**COMMENTS**

Unit 5 on both sides of protected species (30') wide avoided other than one designated species. Threw out skidder during this time.

**AMOUNT OF DISTURBANCE**

<table>
<thead>
<tr>
<th></th>
<th>Unit 5</th>
<th>Unit 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
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<td>Light/Mod.</td>
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<tr>
<td>Undisturbed</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>116</td>
<td>342</td>
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</tbody>
</table>

**Displaced**

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</table>

Vegetative growth will be significantly and lightly used depending on amount of compaction related to soil moisture, landings, and other impacted areas.

**COMPACTION (Light)** - any other area not included in heavy COMPACTION or UNDISTURBED.

**UNDISTURBED** - no signs of any machinery or skidding activity.

**DISPLACED** - any place soil has been mounded by machinery, also include in heavy or light compaction.

**SMZ** - include within transect if within harvest unit.

5/93
<table>
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<tr>
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<td>BURN PILES</td>
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</tbody>
</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 8-25-93

CUTTING METHOD Hand

SKIDDING METHOD Tractor

HAZARD TREATMENT Underburn

SILVICULTURAL TREATMENT Seed tree

UNIT NO. 8

DF/Phma 615-03-050

OPERATION PERIOD August

11 Acres

COMPACTION (Heavy) 32

COMPACTION (Light) 75

UNDISTURBED 125

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS

Burning not complete yet.

Knee deep scattered small shed trails (10+ year old)

Land types are combination of SB & SB2. Cutline exposed in

transects along ridge. If a line were used - a small, original

watershed and not easily dry. Lots of lenses of sub-surface water.

Extra tillage would help a lot.

Road - drive through this soil great - looks good.

Looks like leveling occurred on very wet spots. Why get uphill from

TRANSECT first this mile of road??
<table>
<thead>
<tr>
<th>Transect 1</th>
<th>Transect 2</th>
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</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 9.24.93

OBSEVER L. Kuenen

DISTRICT Fischer Reiver

SALE Smoke Creek P.C.

Unit No. 8 23A

625-03-002

CUTTING METHOD Hand

SKIDDING METHOD Tractor

HAZARD TREATMENT Proposed Buckcut

SILVICULTURAL TREATMENT 1/2 shelterwood

OPERATION PERIOD Winter 92-93 on snow

COMPACTION(Heavy)

COMPACTION(Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS

Excavated tracks roughly horizontal. Don't appear to have been trespassed. Ran tractors up and down hill to avoid puddling depressions.

<table>
<thead>
<tr>
<th>AMOUNT OF DISTURBANCE</th>
<th>No. of</th>
<th>Per-</th>
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<tbody>
<tr>
<td></td>
<td>Paces</td>
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</tr>
<tr>
<td>Heavy disturbance</td>
<td>44</td>
<td>5</td>
</tr>
<tr>
<td>Light, mod. disturbance</td>
<td>271</td>
<td>30</td>
</tr>
<tr>
<td>Undisturbed</td>
<td>600</td>
<td>65</td>
</tr>
<tr>
<td>TOTAL</td>
<td>921</td>
<td>100</td>
</tr>
</tbody>
</table>

Displaced 50 5

COMPACTION(Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

COMPACTION(Light) - any other area not included in heavy COMPACTION or UNDISTURBED.

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<td>Pts</td>
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<td>16</td>
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**TOTALS**

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<tr>
<td>DISTRICT</td>
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<tr>
<td>LIGHT DISTURB</td>
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<td>65</td>
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</tbody>
</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 9/24/93

CUTTING METHOD Hand

SKIDDING METHOD FMC

HAZARD TREATMENT none

SILVICULTURAL TREATMENT Sanitation Salvage

OPERATION PERIOD Early-mid Sept. 1993

COMPACTION (Heavy)

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

AMOUNT OF DISTURBANCE

<table>
<thead>
<tr>
<th>Type</th>
<th>No. of Faces</th>
<th>Percent</th>
<th>No. of Faces</th>
<th>Percent</th>
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<td>TOTAL</td>
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</table>

Vegetative growth will be significantly displaced and lightly used depending on amount of seedings, and other impacted areas. Included in heavy compaction or undisturbed.

UNDISTURBED - no signs of any machinery or skidding activity.

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.

5/93
### TRANSECT SUMMARY FORM

<table>
<thead>
<tr>
<th>Transect 1</th>
<th>Transect 2</th>
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</table>
**KOOTENAI NATIONAL FOREST**

**SOIL DISTURBANCE MONITORING FORM**

**236 = Unit 11**

<table>
<thead>
<tr>
<th>Date</th>
<th>Cutting Method</th>
<th>Skidding Method</th>
<th>Hazard Treatment</th>
<th>Silvicultural Trmt</th>
<th>Operation Period</th>
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<tbody>
<tr>
<td>July 8, 1993</td>
<td>Cligger/Hand</td>
<td>Dispersed</td>
<td>BF3</td>
<td>ST seed cut</td>
<td>July-Aug 89</td>
</tr>
</tbody>
</table>

- **If tractor:**
- **Location:**
- **Compaction (Heavy):**
  - Walk-through
- **Compaction (Light):**
- **Undisturbed:**
- **Displaced:**
- **Excavated Skid Trail:**
- **Sm Trail Rock:**

**Comments:**

This unit was part of a District Fire & Fuel Review.

Very difficult to locate areas where compaction is significant. Many areas require compaction to be done by hand(s) or vehicle.

**Shape of Unit and Pattern of Transect:**

**Action (Heavy):** Any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

**Compaction (Light):** Any other area not included in heavy Compaction or Undisturbed.

**Undisturbed:** No signs of any machinery or skidding activity.

**Displaced:** Any place soil has been mounded by machinery, also include in heavy or light compaction.

**SMZ:** Include within transect if within harvest unit.

07/08/1993
Rexford - North Fork
Unit 11 (236)
11202036
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE MONITORING FORM

July 8, 1993

CUTTING METHOD: clipper
SKIDDING METHOD: RT3
dispersed dedicated
HAZARD TREATMENT: B.B.
SILVICULTURAL TRMT: CC

OPERATION PERIOD: July/Aug 89

IMPACTION (Heavy)

SHAPE OF UNIT AND PATTERN OF TRANSECT

- ACTION (Heavy) - Any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

- COMPACTED SKID TRAIL - Any other area not included in heavy COMPACTION or UNDISTURBED.

UNDISTURBED - No signs of any machinery or skidding activity.

DISPLACED - Any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - Include within transect if within harvest unit.
July 8, 1993

CUTTING METHOD: 
SKIDDING METHOD: 

HAZARD TREATMENT: 
SILVICULTURAL TREATMENT: 
OPERATION PERIOD: 

If tractor: 

HAZARD TREATMENT 
undertaken completed 7/10/91 

SILVICULTURAL TREATMENT 
SW U8 - 300 + med plant 

COMPACT (Heavy) 

COMPACT (Light) 
Walk-Through 

UNDISTURBED 

SHIFTED 

EXCAVATED SKID TRAIL 

SM ROCK 

COMMENTS (include soil, geology, organic debris, other pertinent info) 

SHAPE OF UNIT AND PATTERN OF TRANSECT 

ACTION (Heavy) - Any place where future vegetative growth will be significantly impacted, i.e., skid trails (both 
heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas. 

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SMZ - Include within transect if within harvest unit. 

07/08/93
Rexford - Holdup Gulch
Unit 10
11803073
July 8, 1993

KOOTENAI NATIONAL FOREST

118.3-72

SOIL DISTURBANCE MONITORING FORM

RECEIVED
J. Klunker

DATE
July 8, 1993

CUTTING METHOD
Clearcut

SKIDDING METHOD
Dispersed

IF TRACTOR:

HAZARD TREATMENT
Undisturbed

SILVICULTURAL TRMT
3/1991

OPERATION PERIOD

LOCATION
Rexford - Holdup Gulch

UNIT
12

ACRES
32.4

ELEVATION
3506'

HAZARD TREATMENT

UNDISTURBED

UNDISTURBED - No signs of any machinery or skidding activity.

DISPLACED - Any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - Include within transect if within harvest unit.

COMPACTION (Heavy)

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SMZ - Include within transect if within harvest unit.

COMPACTION (Light)

SMZ

COMPACTION (Heavy)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SNOW ROCK

COMMENTS (Include soil, geology, organic debris, other pertinent info)

The unit was part of a paperback fire遵义
There was live top and brush fuel and base of large log of light been doing - front builds 3" into

SHAPE OF UNIT AND PATTERN OF TRANSECT

11/06/1993

Rexford - Holdup Gulch

Unit 12

11803072
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE MONITORING FORM

CUTTING METHOD
SKIDDING METHOD

If tractor: dispersed dedicated

HAZARD TREATMENT
SILVICULTURAL TRMT

OPERATION PERIOD

Shape Location

COMPACTION (Heavy)

COMPACTION (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SHAPE OF UNIT AND PATTERN OF TRANSECT

COMMENTS (Include soil, geology, organic debris, other pertinent info)

PACTION (Heavy) - Any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

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<td>BURN PILES</td>
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</table>
DATE: May 20, 1993

DATE: 25 SW - Seekset

DATE: 05/20/93 burn '93

DATE: 25 BC - Seeker

DATE: 05/20/93 burn '93

DATE: May 20, 1993

DATE: 26 BC - cmnct by burn '93

DATE: 05/20/93

DATE: Tractor shidded

DATE: 30 Acres

DATE: different stand to west of

DATE: drawn map

DATE: w/ a 90 ft

DATE: by itself

DATE: NE 7/14/03

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</table>
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 6-7-93

CUTTING METHOD: chain clipper

SKIDDING METHOD: RTS

HAZARD ABATEMENT: none

DISTRICT: Three Rivers

SALE: Fourth Cyclone Fire S

Unit No.: 1, 9, 7A, 23B 46

SILVICULTURAL: CC or CC w/ reserve

OPERATION PERIOD: 1994 summer

COMPACT(Heavy) walk through

COMPACT (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS:

Unit 1  40201137, clearcut, 10 Acres, 1994

Unit 7  40201143, clearcut, 19 Acres, 1994  22 Acres

Unit 7A  40201144, CC w/reserve, 17 Acres, 1994  27 Acres

Unit 23B  40201170, CC w/reserve, 10 Acres, 1994  16 Acres

Unit 7B  40301171, clearcut, 14 Acres, 1994  14 Acres

Unit 46  40301177, clearcut, 18 Acres, 1994  20 Acres

Shape of Unit and Pattern of Transect
DATE 5/21/93

OBSERVER Krensen-Crawford - Jemena

DISTRICT Libby

SALE Blue-Rice UNIT #17 & 21

Walk Through subsequent to '92 transects.

COMPACTION HEAVY

COMPACTION LIGHT

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS Somewhat heavy on the skidding. Some previous skidding had occurred in Unit 17. Steep pitch along show - excessive displacement. Too much displacement with fire line. Appears skidding occurred when sticks too wet.

SHAPE OF UNIT AND PATTERN OF WALK THROUGH.
**TRANSECT SUMMARY FORM**

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</table>

- **HEAVY**
- **LIGHT**
- **UNDISTURB**
- **TOTALS**
- **DISPLACED**
- **EROSION**
- **PUDDLED**
- **SMZ**
- **ROCK**
- **BURN PILES**
06/01/1993
Libby - Homesteader
Unit 27
59002027 64002027

KOOTENAI NATIONAL FOREST
SOIL IMPACT DATA FORM

DATE June 1, 1993

OBSERVERS: Ireen Fenner - Johnson

DISTRICT: Fisher River

SALE: Homesteader UNIT # 27

Walk Through subsequent to '92 Transacts.

COMPACTION HEAVY

COMPACTION LIGHT

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS: Very obvious the impact of tractor piling. "Heavy" percentage increased dramatically as result of piling.

Lower end of unit w/o piling is very acceptable.

SHAPE OF UNIT AND PATTERN OF WALK THROUGH.

#27

4432
**TRANSECT SUMMARY FORM**

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TOTA LS

DISPLACED

EROSION

PUDDLED

SMZ

ROCK

BURN PILES

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**Diagram Image**

A topographic map showing various contour lines and marked points such as "Upk 27" and "SMZ."
08/02/1993
Fisher River - Cow Creek Pest Control
Unit 12 & 12A
51703076

KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

DATE 8.2.93

CUTTING METHOD  hand

OBSERVER  Kummer

SKIDDING METHOD  Tractor

DISTRICT  Fisher River

HAZARD ABATEMENT  Understory 1997

SALE  Cow C. P.C.

SILVICULTURAL  St. Seed Cut

Unit No. 12 & 12A

OPERATION PERIOD  1993 Summer

Walk Through

COMPACtion(Heavy)

COMPACtion (Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ/ROCK

COMMENTS  12 - 22A

12A - 10A

Shape of Unit and Pattern of Transect
KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

592.7-43
12 acres

DATE 8/2/93

CUTTING METHOD

SKIDDING METHOD

HAZARD TREATMENT

SILVICULTURAL TREATMENT

OPERATION PERIOD

SALE Cow Creek P.C.

Unit No. 29

Walk through

COMPACTION(Heavy)

COMPACTION(Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS: Skidding looks very good. Very gentle to geography.
Excavated piling looks good. Several other will need work in near future
that are of concern. Piling need to stay away from.

SHAPE OF UNIT AND PATTERN OF TRANSCECT

COMPACTION(Heavy) - any place where future vegetative growth will be significantly impacted, i.e., skid trails (both heavily and lightly used depending on amount of compaction related to soil moisture), landings, and other impacted areas.

COMPACTION(Light) - any other area not included in heavy COMPACTION or UNDISTURBED.

UNDISTURBED - no signs of any machinery or skidding activity.

DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.

5/93
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<tr>
<th>Transect 1</th>
<th>Transect 2</th>
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<th>Transect 4</th>
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KOOTENAI NATIONAL FOREST
SOIL DISTURBANCE DATA FORM

5/68.6-06

DATE 9/7/93

CUTTING METHOD 

SKIDDING METHOD 

HAZARD TREATMENT 

SILVICULTURAL TREATMENT 

OPERATION PERIOD SUMMER '93

SMZ

COMPACTION(Heavy)

COMPACTED

COMPACTION(Light)

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SHAPE OF UNIT AND PATTERN OF TRANSECT

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DISPLACED - any place soil has been mounded by machinery, also include in heavy or light compaction.

SMZ - include within transect if within harvest unit.

5/93
KOOTENAI NATIONAL FOREST
SOIL IMPACT DATA FORM

DATE 5.14.93

DATE

DCE 715-01-035

DISTRICT Cabinet

SALE Beaver Peak Resell UNIT = 2

Walk Through

COMPACTION HEAVY

COMPACTION LIGHT

UNDISTURBED

DISPLACED

EXCAVATED SKID TRAIL

SMZ

COMMENTS

essentially flat of Temple said put Yuch as cap
Look good written operation. Scary temp sk

SHAPE OF UNIT AND PATTERN OF WALK THROUGH.
TRANSECT SUMMARY FORM

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