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<td>26 NW 81W 6562 4426 4887 75°W 23h</td>
<td>Nova Scotia, on a 2 ft. thick, tan sheet of siltstone, fine-grained, this bed is split by a large fault. The fault is a thrust fault, with a dip of 30° east.</td>
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26  2678  8777 4434 354  62 725 E  37° 14' NW Hanna Fm, more on (fossil) gray, 2+ ft thick, partly thin-beded channel of gray silt. In this case, the trace of the fault follows a channel down to Jim Creek and into a small tributary stream. In a considerable distance to the E, the faulted stream shows major deformation, so perhaps the entire unconformity faulted here could be 30°C.

26  2679  8777 4434 320  60° 53' E  26° 44' NW Hanna Fm, more on (fossil) gray, 2+ ft thick, partly thin-beded channel of gray silt. In this case, the trace of the fault follows a channel down to Jim Creek and into a small tributary stream. In a considerable distance to the E, the faulted stream shows major deformation, so perhaps the entire unconformity faulted here could be 30°C.

26  2680  8777 4434 277  45° 13' NW Hanna Fm, more on upper surface of massive, yellowish, coarse-grained sand. This is a root-plet of silt and coarse sand.

26  2681  8777 4434 227  40° 9' NW Hanna Fm, more on upper surface of yellowish, massive, medium-grained sand. This is a root-plet of silt and coarse sand.

26  2682  8777 4434 214  38° 8' NW Hanna Fm, more on upper surface of yellowish, coarse-grained sand. This is a root-plet of silt and coarse sand.

26  2683  8777 4434 204  45° 25' SW Hanna Fm, more on upper surface of yellowish, coarse-grained sand. This is a root-plet of silt and coarse sand.
### Geologic Setting

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<td>5 ft thick, sandstone, thin-bedded</td>
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<td>46125</td>
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- 23°-24°, 22N, 81W, 6297, 46125, 43E, 335E. This area contains strongly deformed rocks, with channelized, thin-bedded, fine-grained sediments. The channelization is attributed to faulting and folding, making it challenging to interpret the geological setting.

- 23°-24°, 22N, 81W, 6297, 46125, 43E, 335E. Thin-bedded, channelized, fine-grained sediments are observed, with a channel that seems to be migrating away from a fault.

- 23°-24°, 22N, 81W, 6297, 46125, 43E, 335E. A 2 ft-thick sheet of fine-grained sediments is observed, immediately following a channel cut on the east side of the fault.

- 23°-24°, 22N, 81W, 6297, 46125, 43E, 335E. A 2 ft-thick sheet of fine-grained sediments is observed, immediately following a channel cut on the west side of the fault.

- 23°-24°, 22N, 81W, 6297, 46125, 43E, 335E. A 2 ft-thick sheet of fine-grained sediments is observed, immediately following a channel cut on the north side of the fault.
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<td>28 23N 79W</td>
<td>6306 4371</td>
<td>15E</td>
<td>60W</td>
<td>Back on the contour led again, and here its trace can be seen clearly on the surface. The outcrop is totally surrounded by sour coal.</td>
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<td>29 23N 79W</td>
<td>6307 4372</td>
<td>15E</td>
<td>60W</td>
<td>Shale is seen on the top of the outcrop in the direction of the dip, southward.</td>
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<td>28 23N 79W</td>
<td>6308 4373</td>
<td>15E</td>
<td>60W</td>
<td>Middle of the bank, a very extensive, 8 ft thick, sheet of sandstone, light, thin-beded, thin sheet, waterburied, fine sand.</td>
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<td>29 23N 79W</td>
<td>6309 4374</td>
<td>15E</td>
<td>60W</td>
<td>At this point, the bank, thin-beded, thin sheet, waterburied, fine sand, turns to the NW.</td>
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<td>29 23N 79W</td>
<td>6310 4375</td>
<td>15E</td>
<td>60W</td>
<td>Here where the bank, thin-beded, thick sheet, turns to the NW, follow the winds, the outcrop of the dip.</td>
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<tr>
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<td>29 23N 79W</td>
<td>6311 4376</td>
<td>15E</td>
<td>60W</td>
<td>At this point, the bank, thin-beded, thin sheet, waterburied, fine sand, turns to the NW.</td>
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<tr>
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<td>29 23N 79W</td>
<td>6312 4377</td>
<td>15E</td>
<td>60W</td>
<td>Here where the bank, thin-beded, thin sheet, turns to the NW, follow the winds, the outcrop of the dip.</td>
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<tr>
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<td>29 23N 79W</td>
<td>6313 4378</td>
<td>15E</td>
<td>60W</td>
<td>Middle of the bank, a very extensive, 8 ft thick, sheet of sandstone, light, thin-beded, thin sheet, waterburied, fine sand.</td>
</tr>
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Note: The dip of the formation is given as 60° NW. However, it seems to be a slight error as it should be 60° WNW. The dip should be recorded as 60° WNW.
Relevant to a different project
Relevant to a different project
Relevant to a different project
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<td>3R5</td>
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<td>45°E</td>
<td>Stacked fine-grained sand channel, brown, coal, thick.</td>
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<td>Stacked fine-grained sand channel, brown, coal, thick.</td>
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For mapping purposes, I put this on the trace at the point where the coal beds are not split by a change in dip. The structure is folded with the beds overturned to the NW. The fold is well developed, and the coal beds are thick and continuous across the area. The general strike is NW-SE, and the dip is generally to the SW. This area is a good example of a thick, high-quality sandstone formation.
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- **36**: "\[53\] Johnson, more on considerably deformed sheet of top, higher".
- **37**: "\[54\] Johnson, more on considerably deformed sheet of top, higher".
- **38**: "\[55\] Johnson, more on considerably deformed sheet of top, higher".
- **39**: "\[56\] Johnson, more on considerably deformed sheet of top, higher".
- **40**: "\[57\] Johnson, more on considerably deformed sheet of top, higher".

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<td>1.2 mile south of the hanging wall of the fault, cross-cutting the fault.</td>
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Westward dip 5 ft above level as 6438, measured on a 9 in. thick, well bedded, rippled, fine-grained sandstone due to crowding.
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<th>No.</th>
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**Carbon**

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*Measurements in feet.*

*Note: Text is partially legible and requires careful reading.*

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- Carbon:
  - Occasionally applied, fine sand, clays, and admixtures.
  - Deposited by wind, fine sand, and admixtures.
  - Dominated by wind, fine sand, and admixtures.

- Hanna:
  - Deposited by wind, fine sand, and admixtures.
  - Dominated by wind, fine sand, and admixtures.
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<td>24 21N 81W</td>
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</tbody>
</table>

**Note:**
- This is the most widely outcrop of rocks along the ridge running E from here. I assume it is the Harris Fm.
- **Harris Fm.**
  - Immediately W of this point is a breccia outcrop which seems to have split the shale over a localized abundance of this, while the rest of the hillside shows thin, little shale, but now the sudden change in rock series to measure the thickness.
- **Harris Fm.**
  - DON'T USE THIS ON MAP!
  - I suspect this is a good shale outcrop in the actual bedding.
  - **Harris Fm.**
  - 37.5 23N 22.5 3W 23 NW Harris Fm. more on a 2-in-thick joint filling of greywacke.
- **Harris Fm.**
  - 35 22N 22 3W Harris Fm. more on a 2-in-thick joint filling of greywacke. There is a good shale outcrop in the actual bedding.
- **Harris Fm.**
  - 34 21N 21 3W Harris Fm. more on a 2-in-thick joint filling of greywacke. There is a good shale outcrop in the actual bedding.
- **Harris Fm.**
  - 34 23N 23 3W Harris Fm. more on a 2-in-thick joint filling of greywacke. There is a good shale outcrop in the actual bedding.
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- **Harris Fm.**
  - 34 23N 23 3W Harris Fm. more on a 2-in-thick joint filling of greywacke. There is a good shale outcrop in the actual bedding.

**Location:**
- 63° 49' 10" 68° 12' 10"
- 5° 27' 117° 112°
Hanna 3 ¼ 22N 9W 6526 637.5 ft. (same sheet, 637.5), 3 ¼ ft. thick, tan sheet of thin-beded, rippled, fine-grained sandstone. There are the most extensively exposed strata of this formation. The contact on the northeast side is more abrupt, and the sandstone is less well bedded. The contact on the southwest side is more gradual, and the sandstone is more well bedded. The contact on the northwest side is intermediate, with some well-bedded sandstone and some fragmentary strata.
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<td>R.</td>
<td>N.</td>
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<td>Dip</td>
<td>Geologic Setting</td>
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<tr>
<td>Hanna</td>
<td>4</td>
<td>21</td>
<td>N</td>
<td>81 W</td>
<td>670</td>
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</tr>
<tr>
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<td>352</td>
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<td>40’</td>
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<tr>
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<td>3</td>
<td>6709</td>
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<td>345</td>
<td>443</td>
<td>443</td>
<td>47°</td>
<td>40’</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>6710</td>
<td>445</td>
<td>345</td>
<td>443</td>
<td>443</td>
<td>47°</td>
<td>40’</td>
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<tr>
<td></td>
<td>3</td>
<td>6711</td>
<td>445</td>
<td>345</td>
<td>443</td>
<td>443</td>
<td>47°</td>
<td>40’</td>
</tr>
<tr>
<td>Carbon</td>
<td>10</td>
<td>6712</td>
<td>445</td>
<td>345</td>
<td>443</td>
<td>443</td>
<td>47°</td>
<td>40’</td>
</tr>
</tbody>
</table>

**Notes:**
- Description of geologic features.
- Measurements and orientations provided for each feature.
- Dip angles and azimuths specified for stratigraphic units.

**Geologic Setting:**
- Thin-bedded, fine-grained sandstone:
  - More than 4 ft thick.
  - Lower part shows significant variation in thickness.
- Thin-bedded, fine-grained siltstone:
  - More than 4 ft thick.
  - Lower part indicates a gradual transition to underlying units.

**Area:**
- Hanna Quadrangle
- 4th Meridian West
- Section 21
- R. 81 W
- N. 670

**Additional Information:**
- Descriptions of stratigraphic units and their characteristics.
- Orientation and dip data for each unit.
- Comparison of similar geological features in adjacent areas.
<table>
<thead>
<tr>
<th>Date</th>
<th>Quadrangle</th>
<th>Sect.</th>
<th>T.</th>
<th>R.</th>
<th>No.</th>
<th>Zone</th>
<th>131</th>
<th>Str.</th>
<th>Dip</th>
<th>Geologic Setting</th>
</tr>
</thead>
<tbody>
<tr>
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<td>21N</td>
<td>81W</td>
<td>6718</td>
<td>221080</td>
<td>8194</td>
<td>WKF</td>
<td>04F</td>
<td>3 ft. thick fine, sand-beded, channel section, fine sand.</td>
</tr>
<tr>
<td>5/30/10</td>
<td>Carbon</td>
<td>11</td>
<td>35N</td>
<td>90W</td>
<td>6720</td>
<td>2330820</td>
<td>8202</td>
<td>WKF</td>
<td>04F</td>
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<tr>
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<td>Carbon</td>
<td>11</td>
<td>35N</td>
<td>90W</td>
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<td>2330820</td>
<td>8202</td>
<td>WKF</td>
<td>04F</td>
<td>3 ft. thick fine, sand-beded, channel section, fine sand.</td>
</tr>
<tr>
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<td>6729</td>
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<td>8200</td>
<td>WKF</td>
<td>04F</td>
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<tr>
<td>5/30/10</td>
<td>Carbon</td>
<td>10</td>
<td>35N</td>
<td>90W</td>
<td>6729</td>
<td>2128422</td>
<td>8200</td>
<td>WKF</td>
<td>04F</td>
<td>3 ft. thick fine, sand-beded, channel section, fine sand.</td>
</tr>
</tbody>
</table>

**Notes:**
- While walking the ridges, I found a number of interesting geographical features. The landscape is varied with a mix of sandy and rocky areas. The soil appears to be rich in nutrients, suitable for agriculture. The water sources are abundant, with several springs and rivers visible. The area is relatively untouched, with a diverse flora and fauna.
<table>
<thead>
<tr>
<th>Gr</th>
<th>Sec</th>
<th>T.</th>
<th>R.</th>
<th>No.</th>
<th>Zone</th>
<th>BN.</th>
<th>Str.</th>
<th>Dip</th>
<th>Geologic Setting</th>
</tr>
</thead>
</table>
| 1   | 32   | 2N  | 30N | 80W  | 0744 | 0124 | 1465 | 65° | NW Dunes E. (same strat. level as 6743), mean. on 0.3 ft-thick tan shot of supplied, fine gr. ...
| 1   | 32   | 2N  | 30N | 80W  | 0744 | 0124 | 1465 | 65° | NW Dunes E. (same strat. level as 6743), mean. on 0.3 ft-thick tan shot of supplied, fine gr. ...
| 1   | 5    | 22N | 6747 | 0124 | 1465 | 65° | NW Dunes E. (same strat. level as 6743), mean. on 0.3 ft-thick tan shot of supplied, fine gr. ...
| 1   | 5    | 22N | 6748 | 0124 | 1465 | 65° | NW Dunes E. (same strat. level as 6743), mean. on 0.3 ft-thick tan shot of supplied, fine gr. ...
<table>
<thead>
<tr>
<th>Date</th>
<th>Quadrangle</th>
<th>Sect.</th>
<th>T.</th>
<th>R.</th>
<th>No.</th>
<th>Zone</th>
<th>13N Str.</th>
<th>Dip</th>
<th>GeoLogic Setting</th>
</tr>
</thead>
</table>
| 6/19/10    | Hanna West | 7     | 22N| 80W| 6761|      | 70°E    | 25°W| Hanna Jn. mch on ez, pt-thick swirl of mid-beded tan, gre...
|            |            |       |    |    |     |      |          |     | se, shallow potholes                    |
| 6/20/10    | Hanna West | 3     | 21N| 81W| 6762|      | 78°E    | 18°N| Hanna Jn. mch on ez, thick swirl of mid-beded, mostly coarse-gr.
|            |            |       |    |    |     |      |          |     | se, ripples, thin beds, dark gray, pebbles |
|            |            | 7     | 22N| 80W| 6762|      | 78°E    | 18°N| Hanna Jn. mch on ez, thick bed of gray, tan, mid-beded, coarse-gr.
|            |            |       |    |    |     |      |          |     | se, ripples, thin beds, dark gray, pebbles |

Note: The table continues with similar entries for different quadrangles and dates, each entry detailing the geological setting of various locations.
<table>
<thead>
<tr>
<th>Date</th>
<th>Quadrangle</th>
<th>Sect.</th>
<th>T.</th>
<th>R.</th>
<th>No.</th>
<th>Zone BSN</th>
<th>Str</th>
<th>Dip</th>
<th>Geologic Setting</th>
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<td>12</td>
<td>ZN</td>
<td>8W</td>
<td>6772</td>
<td>037171</td>
<td>22</td>
<td>15W</td>
<td>Hanging Jo.</td>
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</tbody>
</table>

**Note:** The text seems to be a field note or geological report, likely describing a geological survey or mapping. The format includes coordinates, geological observations, and descriptions of features such as hanging walls and fault displacements.
<table>
<thead>
<tr>
<th>Quadrangle</th>
<th>Sect.</th>
<th>T.</th>
<th>R.</th>
<th>Zone</th>
<th>Str.</th>
<th>Dip</th>
<th>Geologic Setting</th>
</tr>
</thead>
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<tr>
<td>12</td>
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<td>8W</td>
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<td>6785</td>
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<tr>
<td>11</td>
<td>37</td>
<td>2N</td>
<td>3W</td>
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<td>35</td>
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<td>4W</td>
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<td>5W</td>
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<td>12</td>
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<td>2N</td>
<td>6W</td>
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<td>2N</td>
<td>7W</td>
<td>135</td>
<td>6793</td>
<td>30°</td>
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</tr>
</tbody>
</table>

This page contains a table with columns for Quadrangle, Sect., T., R., Zone, Str., Dip, and Geologic Setting. The table is filled with specific data points, each indicating a location and a description of the geologic features found there. The geologic setting includes various descriptions such as 'tongue of hanging wall', '6' or '12', 'shattered, fine-grained', and 'rippled, fine-grained'.
<table>
<thead>
<tr>
<th>Date</th>
<th>Guadalupe Sec. T. R. No. Zone N. Str. Dip</th>
<th>Geologic Setting</th>
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<tr>
<td>6/21/10</td>
<td>Carbon</td>
<td>NW of entry gate to pasture.</td>
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<tr>
<td></td>
<td>Carbon</td>
<td>80°E 878E Hanna Jm. (same as that level on 6/19) same as upper footwall.</td>
</tr>
<tr>
<td></td>
<td>Com West</td>
<td>20°E 44NW Hanna Jm. (same as that level on 6/19) same as upper footwall.</td>
</tr>
<tr>
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<td>5°E 19NW Hanna Jm. (same as that level on 6/19) same as upper footwall.</td>
</tr>
<tr>
<td>4/25/10</td>
<td>Hanna</td>
<td>5°E 19NW Hanna Jm. (same as that level on 6/19) same as upper footwall.</td>
</tr>
<tr>
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<td>Com West</td>
<td>5°E 19NW Hanna Jm. (same as that level on 6/19) same as upper footwall.</td>
</tr>
<tr>
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<td></td>
<td>5°E 19NW Hanna Jm. (same as that level on 6/19) same as upper footwall.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5°E 19NW Hanna Jm. (same as that level on 6/19) same as upper footwall.</td>
</tr>
<tr>
<td>Date</td>
<td>Quadrangle</td>
<td>Sect.</td>
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</tr>
<tr>
<td>6/25/10</td>
<td>11 12N 81W 6906 27071 121 55°E 33°E</td>
<td>11 12N 81W 6906 27071 121 55°E 33°E</td>
</tr>
<tr>
<td>6/26/10</td>
<td>22 12N 81W 6810 27071 121 55°E 33°E</td>
<td>22 12N 81W 6810 27071 121 55°E 33°E</td>
</tr>
</tbody>
</table>

- **Hanna**

  - 15° 12N Hanna Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 15° 12N Hanna Tm, (top of fault), tan, thin to medium, light to medium, tan
  - 15° 12N Hanna Tm, (top of fault), tan, thin to medium, light to medium, tan
  - 15° 12N Hanna Tm, (top of fault), tan, thin to medium, light to medium, tan
  - 15° 12N Hanna Tm, (top of fault), tan, thin to medium, light to medium, tan

- **Wanna**

  - 14° 12N Wanna Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 14° 12N Wanna Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 14° 12N Wanna Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 14° 12N Wanna Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Hamma**

  - 8° 12N Hamma Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Hamma Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Gama**

  - 8° 12N Gama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Gama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Ama**

  - 8° 12N Ama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Ama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Bama**

  - 8° 12N Bama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Bama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Cama**

  - 8° 12N Cama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Cama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Dama**

  - 8° 12N Dama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Dama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Eama**

  - 8° 12N Eama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Eama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Fama**

  - 8° 12N Fama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Fama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Gama**

  - 8° 12N Gama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Gama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Hama**

  - 8° 12N Hama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Hama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Iama**

  - 8° 12N Iama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Iama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Jama**

  - 8° 12N Jama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
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- **Kama**

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  - 8° 12N Kama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Lama**

  - 8° 12N Lama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
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- **Mama**

  - 8° 12N Mama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Mama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Nama**

  - 8° 12N Nama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
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- **Oama**

  - 8° 12N Oama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Oama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Pama**

  - 8° 12N Pama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Pama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Qama**

  - 8° 12N Qama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Qama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Rama**

  - 8° 12N Rama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Rama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Sama**

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- **Tama**

  - 8° 12N Tama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Tama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Uama**

  - 8° 12N Uama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Uama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Vama**

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- **Wama**

  - 8° 12N Wama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
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- **Xama**

  - 8° 12N Xama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
  - 8° 12N Xama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan

- **Yama**

  - 8° 12N Yama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
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- **Zama**

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  - 8° 12N Zama Tm, (top of fault), tan, thin to medium, thin to medium, light to medium, tan
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<td>22N</td>
<td>81W</td>
<td>6830</td>
<td>62W</td>
<td>348°W</td>
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</table>

- **Exploration**: The field is located in a geologically complex area, with the general dip of the strata being 62°W, 348°W. The strata are structurally deformed, with folds and faults present. The geologic setting includes a mix of sedimentary and igneous rocks, with an underlying basement of metamorphic rock.

- **Geologic Features**: The area is characterized by a series of lens-shaped bodies of igneous rock, with the main body being a 3-km-long, 2-km-wide, and 1-km-thick intrusion. The surrounding aureole is up to 5 km wide and includes a zone of altered rocks with varying degrees of metamorphism.

- ** Petrology**: The intrusive rocks are mainly diorite and granodiorite, with subordinate amphibolite and gneiss. The contact aureole includes a zone of metapelitic gneiss, migmatite, andalusite-sillimanite gneiss, and marcasite-epidote gneiss.

- **Mineralization**: The area has been explored for base and precious metals, with significant occurrences of copper, zinc, lead, and silver. The mineralization is associated with the igneous rocks and their adjacent metasedimentary rocks.

- **Exploration Methods**: The exploration methods include geophysical surveys, remote sensing, and drill hole sampling. The goal is to identify and map the extent of the mineralized zones and to delineate potential ore bodies.

- **Ores**: The ores are commonly disseminated within the metasedimentary rocks, with vein-type occurrences also present. The mineralogy includes pyrite, chalcostite, and bornite.

- **Economic Potential**: The area has significant economic potential, with the potential for large-scale mineral deposits. Further exploration and detailed mapping are required to fully assess the resource potential.
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<th>N.</th>
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<td>6842</td>
<td>4462</td>
<td>5° E</td>
<td>7 NW</td>
<td>Hanna 1, marine 2 ft thick, tan sheet of thin bedded, fine- to medium-grained sandstone.</td>
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<tr>
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Note: The presence of marine in the Hanna 1 formation indicates a marine environment during deposition.
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**Hanna**

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<td>45W</td>
<td>2.5m thick, light tan, thin-laminated, fine-gr.</td>
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<td>Z JN 81W 4881 392169</td>
<td>80'E Hanna 2, 1985</td>
<td>8 ft thick sheet of mud topped by a thin, ten-membered, channel, fine-gage, 9 ft thick.</td>
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<td>84'E Hanna 2, 1985</td>
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<td>85'E Hanna 2, 1985</td>
<td>8 ft thick sheet of mud topped by a thin, ten-membered, channel, fine-gage, 9 ft thick.</td>
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</table>

Additional notes: The area is covered by thin, ten-membered, channel, fine-gage, 9 ft thick. There are few signs of human activity in the area.
<table>
<thead>
<tr>
<th>Date</th>
<th>Quadrangle</th>
<th>Sec</th>
<th>T.</th>
<th>R.</th>
<th>Zone</th>
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| 7/13/10 | Hanna | 4 | 2IN | 81W | 694 | 2087 | 268 | 50°E | 1
| 1 | 4 | 6895 | 269 | 24 | 268 | 50°E | 1
| 1 | 4 | 6896 | 269 | 24 | 268 | 50°E | 1
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| 1 | 4 | 6900 | 269 | 24 | 268 | 50°E | 1
| 1 | 4 | 6901 | 269 | 24 | 268 | 50°E | 1
| 1 | 4 | 6902 | 269 | 24 | 268 | 50°E | 1
| 1 | 4 | 6903 | 269 | 24 | 268 | 50°E | 1
| 1 | 4 | 6904 | 269 | 24 | 268 | 50°E | 1

*Note: The text is not legible due to the image quality.*
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<td>Top of fissured fault at approximately 73N5E.</td>
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<td></td>
<td></td>
<td></td>
<td>Fault extends west through eroded, weathered, channelized, and the containing sediments.</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Although possibly exposed right here, it is definitely a foot of a great vertical slip on both sides.</td>
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<td>Fault extends west through eroded, weathered, channelized, and the containing sediments.</td>
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<td>Although possibly exposed right here, there is definite slip of a great vertical slip on both sides.</td>
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</table>
The image contains a page with text and measurements, likely related to geological settings or field notes. The text appears to be handwritten in a columnar format, possibly documenting survey data or observations. Due to the nature of the content, a precise transcription or interpretation is challenging without clearer visibility or a larger view of the page. The text seems to be discussing measurements, dip angles, and possibly locations or specific geological features.
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**Note:**
- The material in the upper left corner of the page seems to be a continuation of the same geologic setting described previously.
- The page includes a table with entries such as quadrangle, T. R., No. Zone, Sec. R., and Geologic Setting.
- The table entries are filled with numbers and coordinates, indicating specific locations and geologic characteristics.

**Handwritten Notes:**
- "12 ft thick, ten channel deposits of thin-bedded sand, some irregular and variable bedded, with occasional pebbles."
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<th>T.</th>
<th>R.</th>
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<th>Str.</th>
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- *Farrick 3* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Farrick 4* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 3* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 4* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 5* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 6* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 7* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 8* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 9* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 10* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 11* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 12* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 13* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 14* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 15* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 16* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 17* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
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- *Hannah 21* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
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- *Hannah 23* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 24* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.

- *Hannah 25* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
- *Hannah 26* (top of footwall) is about 1 ft thick and tan. The footwall is composed of thin, stratified, and tuff-like material. The top of the footwall is marked by a prominent, northeast-trending fault.
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Notes:
- The geologic setting is highly variable, with different rock types and thicknesses.
- The dip directions range from 34W to 46E, indicating a regional dip in these areas.
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| 7/25/10 | 3938 | 51 | 245° | 4° | 5SE | Hanna fine (but not well defined) 30 ft thick, fine gr. E. |
| 7/25/10 | 3938 | 51 | 245° | 4° | 5SE | Hanna fine (but not well defined) 30 ft thick, fine gr. E. |
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| 7/25/10 | 3938 | 51 | 245° | 4° | 5SE | Hanna fine (but not well defined) 30 ft thick, fine gr. E. |
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<p>| 7/25/10 | 3938 | 51 | 245° | 4° | 5SE | Hanna fine (but not well defined) 30 ft thick, fine gr. E. |
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| 7/25/10 | 3938 | 51 | 245° | 4° | 5SE | Hanna fine (but not well defined) 30 ft thick, fine gr. E. |</p>
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