# APPENDIX D

# BORING LOGS, WELL CONSTRUCTION LOGS, AND WELL ABANDONMENT FORMS

# BORING LOGS

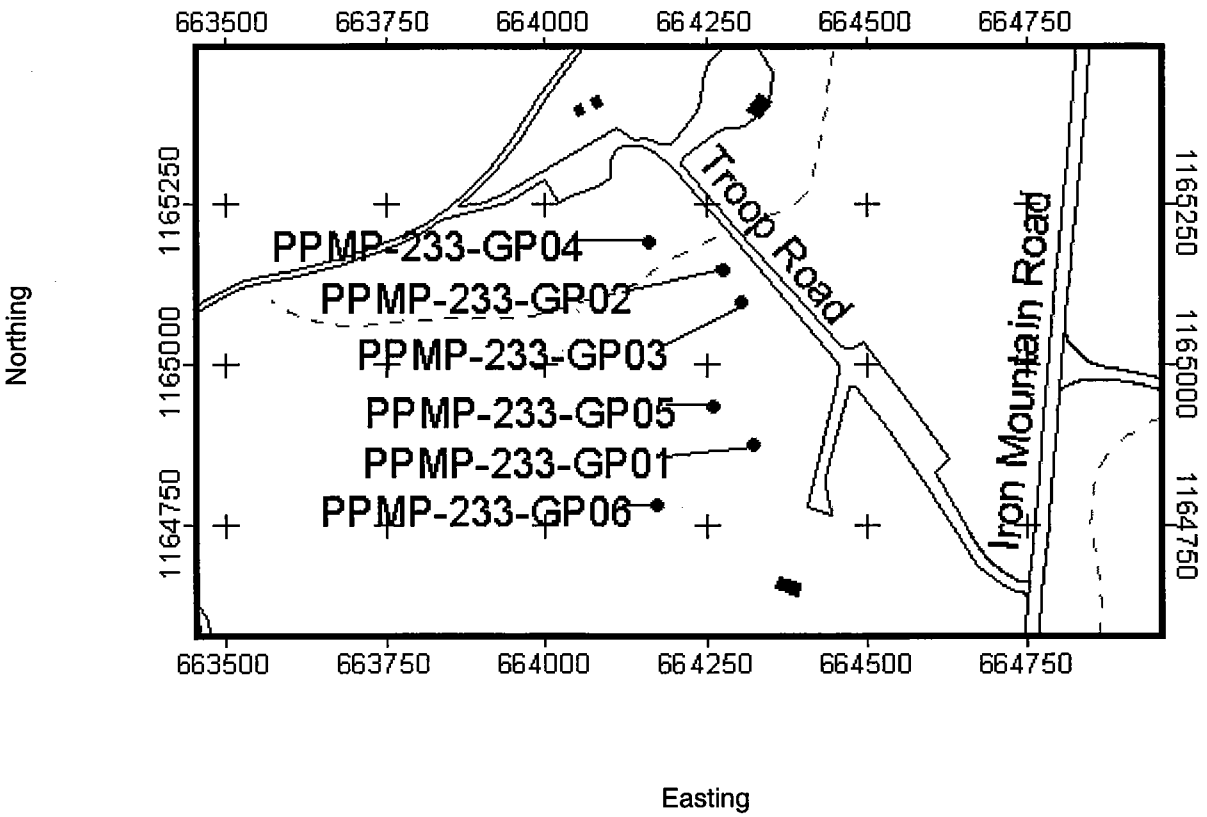
# HTRW DRILLING LOG

| | | |
|---|---|---|
| District: **Mobile USACE** | | **HOLE NUMBER** PPMP-233-GP01 |
| 1. Company name: **Shaw Environmental, Inc.** | 2. Drill Subcontractor: Miller Drilling Company | Sheet 1 of 3 sheets |

| | |
|---|---|
| 3. Project: Fort McClellan | 4. Location: **Calhoun County, Alabama** |
| 5. Name of driller: Ken Gobell | 6. Mfr. designation of drill: CME-550X |
| 7. Sizes and types of drilling and sampling equipment:<br>Hollow Stem Auger<br>HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons | 8. Hole location: Fill Area West of Range 19, Parcel 233 |
| | 9. Surface elevation (feet above mean sea level): Unknown |
| | 10. Date started: 02/08/00 / 11. Date completed: 02/08/00 |
| 12. Overburden thickness (feet bgs): >12 | 15. Depth groundwater encountered (feet bgs): Not encountered |
| 13. Depth drilled into rock (feet bgs): 0 | 16. Depth to water and elapsed time after drilling completed (feet bgs): NA |
| 14. Total depth of hole (feet bgs): 12 | 17. Other water level measurements (specify): NA |

| 18. Geotechnical samples: | Collected: | Disturbed: | Undisturbed: | 19. Total no. of core boxes: NA | | |
|---|---|---|---|---|---|---|
| | NA | NA | NA | | | |
| 20. Samples for chemical analysis: | VOC | Metals | Other (specify) | Other (specify) | Other (specify) | 21. Total core recovery: |
| | Yes/SVOCs | Yes | PCBs | Herbicides | Pesticides | NA |
| 22. Disposition of hole: | Backfilled | Monitoring well | Other (specify) | Geologist: | | |
| | Grout | NA | NA | John Hofer | | |

**LOCATION SKETCH/COMMENTS:**



# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP01

Project: Fort McClellan | Geologist: John Hofer | Sheet 2 of 3 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | sm: SILT and SAND, grading to SAND, some Silt at 4'-6' bgs. | | | | | KZ0001<br>KZ0002<br>KZ0003 | pushed | HSA - Miller Drilling Company - 2/8/00<br>Recovery not logged (0-12' bgs) |
| | 2 | | | | Organic Vapor = 0.0ppm | | | pushed | |
| | 4 | | sm | | Organic Vapor = 0.0ppm | | | pushed | |
| 5 | 6 | | | | Organic Vapor = 0.0ppm | | | pushed | |
| | 8 | cl: CLAY,some Silt, orange to yellowish-red. | | | Organic Vapor = 0.0ppm | | | pushed | |
| 10 | 10 | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP01

Project: Fort McClellan | Geologist: John Hofer | Sheet 3 of 3 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 11 | | cl | | Organic Vapor = 3.0ppm | | KZ0004 | pushed | |
| | 12 | | | | | | | | Boring terminated at 12' bgs<br>Bottom of borehole is 12' bgs |

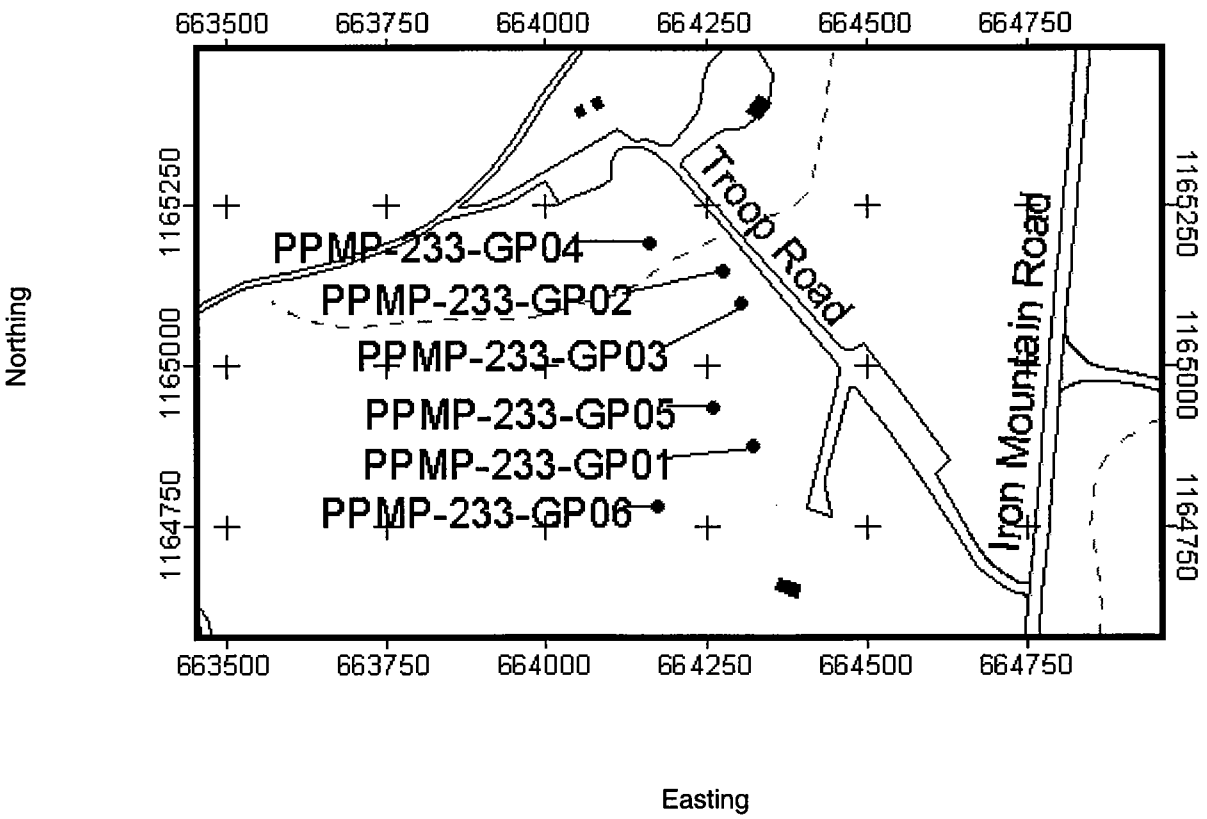
# HTRW DRILLING LOG

| | | |
|---|---|---|
| District: **Mobile USACE** | | **HOLE NUMBER** PPMP-233-GP02 |
| 1. Company name: **Shaw Environmental, Inc.** | 2. Drill Subcontractor: Miller Drilling Company | Sheet 1 of 3 sheets |

| | |
|---|---|
| 3. Project: Fort McClellan | 4. Location: **Calhoun County, Alabama** |
| 5. Name of driller: Ken Gobell | 6. Mfr. designation of drill: CME-550X |
| 7. Sizes and types of drilling and sampling equipment:<br>Hollow Stem Auger<br>HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons | 8. Hole location: Fill Area West of Range 19, Parcel 233 |
| | 9. Surface elevation (feet above mean sea level): Unknown |
| | 10. Date started: 02/21/00 — 11. Date completed: 02/21/00 |
| 12. Overburden thickness (feet bgs): >12 | 15. Depth groundwater encountered (feet bgs): Not encountered |
| 13. Depth drilled into rock (feet bgs): 0 | 16. Depth to water and elapsed time after drilling completed (feet bgs): NA |
| 14. Total depth of hole (feet bgs): 12 | 17. Other water level measurements (specify): NA |

| 18. Geotechnical samples: | Collected: | Disturbed: | Undisturbed: | 19. Total no. of core boxes: NA | | |
|---|---|---|---|---|---|---|
| | NA | NA | NA | | | |
| 20. Samples for chemical analysis: | VOC | Metals | Other (specify) | Other (specify) | Other (specify) | 21. Total core recovery: |
| | Yes/SVOCs | Yes | PCBs | Herbicides | Pesticides | NA |
| 22. Disposition of hole: | Backfilled | Monitoring well | Other (specify) | Geologist: | | |
| | Grout | NA | NA | John Hofer | | |

**LOCATION SKETCH/COMMENTS:**



# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP02

Project: Fort McClellan | Geologist: John Hofer | Sheet 2 of 3 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | sm: Dark brown SAND, some Silt, some Clay, moist. | sm | | Organic Vapor = 0.0ppm | | KZ0005 MS/MSD | pushed | HSA - Miller Drilling Company - 2/21/00<br>Rec 2.0'/2.0' (0-2' bgs) |
| | 1 | | | | | | | | |
| | 2 | | | | Organic Vapor = 0.0ppm | | | pushed | Rec 2.0'/2.0' (2-4' bgs) |
| | 3 | cl: Yellowish brown CLAY, some Sand. | cl | | | | | | |
| | 4 | ml: Yellowish brown SILT. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 2.0'/2.0' (4-6' bgs) |
| 5 | 5 | cl: Brownish yellow CLAY, some weathered Chert. | cl | | | | | | |
| | 6 | ml: Brown SILT, some Sand. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 2.0'/2.0' (6-8' bgs) |
| | 7 | cl: Reddish yellowish brown CLAY , some Silt lenses, slightly moist. | | | | | | | |
| | 8 | cl: Reddish yellowish brown CLAY, some Silt lenses, dry, low plasticity. | | | Organic Vapor = 0.0ppm | | | pushed | Rec 2.0'/2.0' (8-10' bgs) |
| | 9 | | cl | | | | | | |
| 10 | 10 | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP02

Project: Fort McClellan | Geologist: John Hofer | Sheet 3 of 3 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 11 | | | | Organic Vapor = 0.0ppm | | KZ0006 | pushed | Rec 2.0'/2.0' (10-12' bgs) |
| | 12 | | | | | | | | Bottom of borehole at 12' bgs |

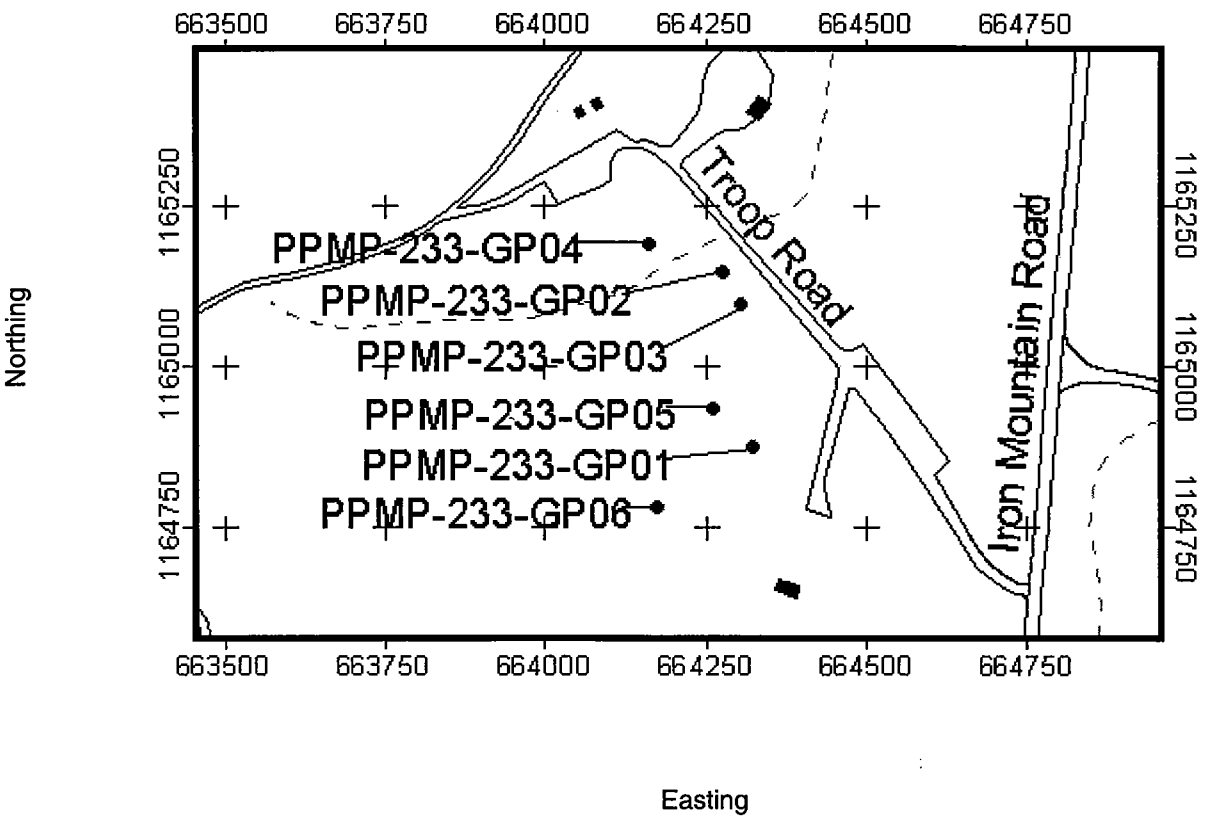
# HTRW DRILLING LOG

| | | |
|---|---|---|
| District: **Mobile USACE** | | **HOLE NUMBER** PPMP-233-GP03 |
| 1. Company name: **Shaw Environmental, Inc.** | 2. Drill Subcontractor: Miller Drilling Company | Sheet 1 of 9 sheets |

| | |
|---|---|
| 3. Project: Fort McClellan | 4. Location: **Calhoun County, Alabama** |
| 5. Name of driller: Jason Ratliffe | 6. Mfr. designation of drill: CME-550X/Ingersoll Rand T3W |
| 7. Sizes and types of drilling and sampling equipment:<br>Hollow Stem Auger, Air Rotary<br>HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons<br>AR - 6" Tricone Roller Bit | 8. Hole location: Fill Area West of Range 19, Parcel 233<br>9. Surface elevation (feet above mean sea level): 825.99<br>10. Date started: 02/21/00 — 11. Date completed: 03/18/01 |
| 12. Overburden thickness (feet bgs): >78 | 15. Depth groundwater encountered (feet bgs): 68 |
| 13. Depth drilled into rock (feet bgs): 0 | 16. Depth to water and elapsed time after drilling completed (feet bgs): NA |
| 14. Total depth of hole (feet bgs): 78 | 17. Other water level measurements (specify): NA |

| 18. Geotechnical samples: | Collected: | Disturbed: | Undisturbed: | 19. Total no. of core boxes: NA | | |
|---|---|---|---|---|---|---|
| | NA | NA | NA | | | |
| 20. Samples for chemical analysis: | VOC | Metals | Other (specify) | Other (specify) | Other (specify) | 21. Total core recovery: |
| | Yes/SVOCs | Yes | PCBs | Herbicides | Pesticides | NA |
| 22. Disposition of hole: | Backfilled | Monitoring well | Other (specify) | Geologist: | | |
| | NA | 2" Permanent | ABANDONED | John Hofer | | |

**LOCATION SKETCH/COMMENTS:**



# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 2 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | sm: Black fine SAND, some Silt, moist. | sm | | Organic Vapor = 0.0ppm | | KZ0007 | pushed | HSA - Miller Drilling Company - 2/21/00<br>Rec 1.5'/2.0' (0-2' bgs) |
| 825 | 1 | cl: Red CLAY, some Sand. | cl | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 2 | ml: Brown SILT, some very fine Sand, moist, low plasticity. | | | | | | pushed | Rec 2.0'/2.0' (2-4' bgs) |
| | 3 | | ml | | | | | | |
| | 4 | ml: Brownish gray SILT, some fine to medium Sand, dry, very stiff. | | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.4'/2.0' (4-6' bgs) |
| | 5 | | ml | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| 820 | 6 | ml: Brownish gray SILT, some fine to medium Sand, dry, very stiff. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 0.6'/2.0' (6-8' bgs) |
| | | NA: No recovery. | NA | | | | | | |
| | 7 | | | | | | | | |
| | 8 | cl: Brownish gray to reddish gray CLAY, some Silt with weathered Chert fragments and iron staining, dry, low plasticity, very stiff. | | | Organic Vapor = 0.0ppm | | | 3 9 10 12 | Rec 1.5'/2.0' (8-10' bgs) |
| | 9 | | NA | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 10 | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 3 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | | cl: Brownish gray to reddish gray CLAY, some Silt with weathered Chert fragments and iron staining, dry, low plasticity, very stiff. | cl | | Organic Vapor = 0.0ppm | | KZ0008 | 4 8 8<br>10 | Rec 1.3'/2.0' (10-12' bgs) |
| 815 | 11 | | | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 12 | NA: No sample collected for lithologic description. | | | | | | | |
| | 13 | | NA | | | | | | |
| | 14 | cl: Brownish gray to reddish gray CLAY, some Silt with weathered Chert fragments and iron staining, dry, low plasticity, very stiff. | cl | | Organic Vapor = 0.0ppm | | | 4 4 6 7 | Rec 1.7'/2.0' (14-16' bgs) |
| | 15 | | | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| 810 | 16 | NA: No sample collected for lithologic description. | | | | | | | |
| | 17 | | NA | | | | | | |
| | 18 | | | | | | | | |
| | 19 | cl: Brownish red CLAY, some Chert, soft to medium stiff, moist. | | | Organic Vapor = 0.0ppm | | | | Rec 2.0'/2.0' (19-21' bgs) |
| | 20 | | cl | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 4 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 805 | 21 | NA: No sample collected for lithologic description. | | | | | | | |
| | 22 | | NA | | | | | | |
| | 23 | | | | | | | | |
| | 24 | cl: Brownish red CLAY, some Chert, soft to medium stiff, moist. | | | Organic Vapor = 0.0ppm | | | 2 7 9 | Rec 2.0'/2.0' (24-26' bgs) |
| | 25 | | cl | | | | | | |
| 800 | 26 | ml: Light brown SILT, abundant Chert and iron concretions, some Sand, some Clay. | ml | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 27 | | | | | | | | |
| | 28 | | NA | | | | | | |
| | 29 | cl: Brownish red CLAY with Chert, stiff, low plasticity, slightly moist. | | | | | | 4 4 7 9 | Rec 1.8'/2.0' (29-31' bgs) |
| | 30 | | cl | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 5 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 31 | NA: No recovery. | NA | | | | | | |
| 795 | | NA: No sample collected for lithologic description. | | | | | | | |
| | 32 | | | | | | | | |
| | | | NA | | | | | | |
| | 33 | | | | | | | | |
| | 34 | cl: Brownish red CLAY with Chert, medium stiff to stiff, low plasticity, slightly moist to moist. | cl | | Organic Vapor = 0.0ppm | | | 2 3 5 6 | Rec 1.8'/2.0' (34-36' bgs) |
| | 35 | NA: No recovery. | NA | | | | | | |
| 790 | 36 | NA: No sample collected for lithologic description. | | | | | | | |
| | 37 | | | | | | | | |
| | 38 | | | | | | | | |
| | 39 | sm: Yellowish red, very fine SAND, some Silt, dry, very dense. | sm | | | | | 24 50/0.5' | Recovery not recorded (39-40' bgs) |
| | 40 | NA: No sample collected for lithologic description. | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 6 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 785 | 41 | | | | | | | | |
| | 42 | | NA | | | | | | |
| | 43 | | | | | | | | |
| | 44 | ml: Light brown SILT with black rock fragments (possibly Shale), dry. | ml | | Organic Vapor = 0.0ppm | | | 50/0.4' | Rec 0.4'/0.4' (44-44.4' bgs) |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 45 | | | | | | | | |
| 780 | 46 | | | | | | | | |
| | | | NA | | | | | | |
| | 47 | | | | | | | | |
| | 48 | | | | | | | | |
| | 49 | sh: Brown weathered SHALE, hard, friable, dry. | | | Organic Vapor = 0.0ppm | | | 9 19 50/0.4' | Rec 1.4'/1.4' (49-50.4' bgs) |
| | | | sh | | | | | | |
| | 50 | | | | | | | | Auger refusal at 50' bgs Air rotary - Miller Drilling Company - 3/18/00 |
| | | sh: SHALE: brown to black. | | | | | | | Description from air rotary |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 7 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 775 | 51 | | | | | | | | drill cuttings (50.4-78' bgs) |
| | 52 | | | | | | | | |
| | 53 | | | | | | | | |
| | 54 | | | | | | | | |
| | 55 | | sh | | | | | | |
| 770 | 56 | | | | | | | | |
| | 57 | | | | | | | | |
| | 58 | | | | | | | | |
| | 59 | | | | | | | | |
| | 60 | sh: SHALE: brown to black. | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 8 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 765 | 61 | | sh | | | | | | |
| | 62 | | | | | | | | |
| | 63 | | | | | | | | |
| | 64 | | | | | | | | |
| | 65 | | | | | | | | |
| 760 | 66 | | | | | | | | |
| | 67 | | | | | | | | |
| | 68 | | | | | | | | |
| | 69 | | | | | | | | |
| | 70 | sh: SHALE: brown to black. | | | | | | | |
| 755 | 71 | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP03

Project: Fort McClellan | Geologist: John Hofer | Sheet 9 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 71 | | | | | | | | |
| | 72 | | | | | | | | |
| | 73 | | | | | | | | |
| | 74 | | sh | | | | | | |
| | 75 | | | | | | | | |
| 750 | 76 | | | | | | | | |
| | 77 | | | | | | | | |
| | 78 | | | | | | | | Bottom of borehole at 78' bgs |

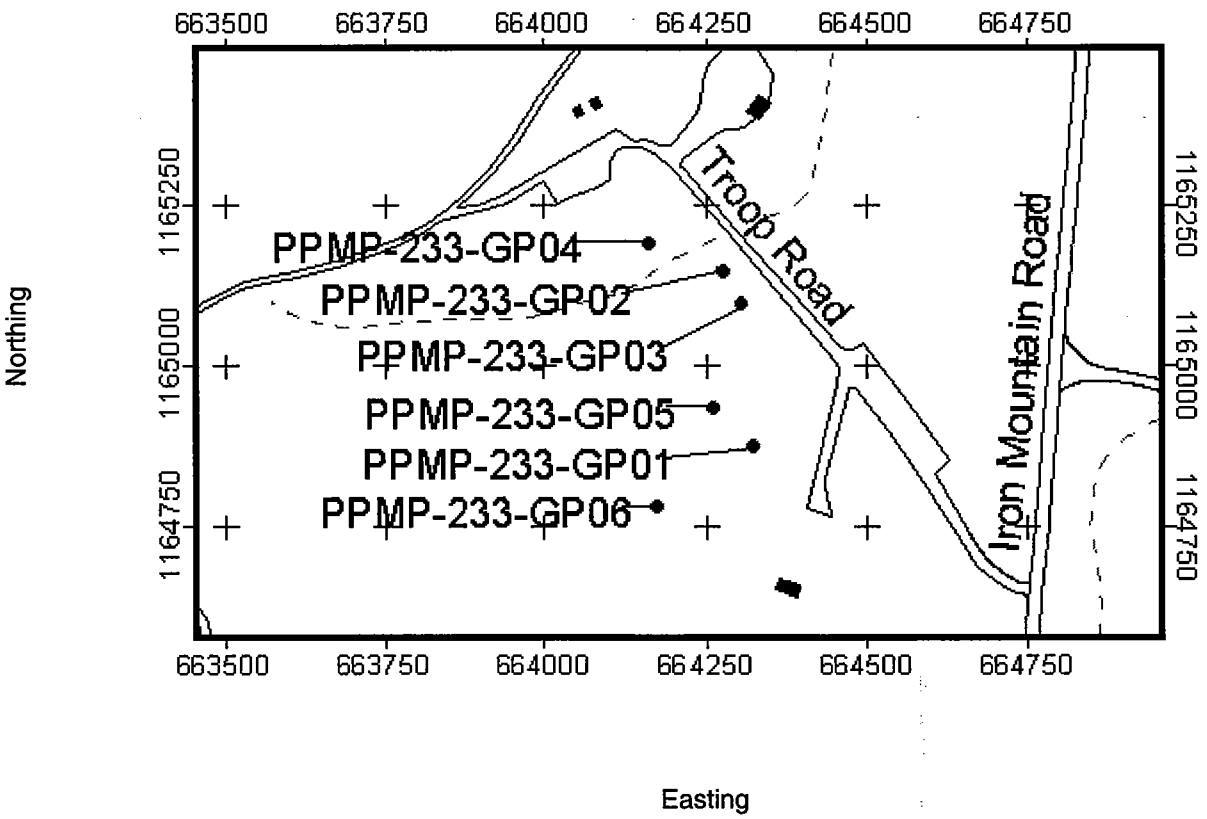
# HTRW DRILLING LOG

| | | |
|---|---|---|
| District: **Mobile USACE** | | **HOLE NUMBER** PPMP-233-GP04 |
| 1. Company name: **Shaw Environmental, Inc.** | 2. Drill Subcontractor: Miller Drilling Company | Sheet 1 of 9 sheets |

| | |
|---|---|
| 3. Project: Fort McClellan | 4. Location: **Calhoun County, Alabama** |
| 5. Name of driller: Ken Gobell | 6. Mfr. designation of drill: CME-550X |
| 7. Sizes and types of drilling and sampling equipment:<br>Hollow Stem Auger<br>HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons | 8. Hole location: Fill Area West of Range 19, Parcel 233 |
| | 9. Surface elevation (feet above mean sea level): 827.06 |
| | 10. Date started: 02/22/00 / 11. Date completed: 02/22/00 |
| 12. Overburden thickness (feet bgs): >81 | 15. Depth groundwater encountered (feet bgs): 64 |
| 13. Depth drilled into rock (feet bgs): 0 | 16. Depth to water and elapsed time after drilling completed (feet bgs): NA |
| 14. Total depth of hole (feet bgs): 81 | 17. Other water level measurements (specify): NA |

| 18. Geotechnical samples: | Collected: | Disturbed: | Undisturbed: | 19. Total no. of core boxes: NA | | |
|---|---|---|---|---|---|---|
| | NA | NA | NA | | | |
| 20. Samples for chemical analysis: | VOC | Metals | Other (specify) | Other (specify) | Other (specify) | 21. Total core recovery: |
| | Yes/SVOCs | Yes | PCBs | Herbicides | Pesticides | NA |
| 22. Disposition of hole: | Backfilled | Monitoring well | Other (specify) | Geologist: | | |
| | NA | 2" Permanent | ABANDONED | John Hofer | | |

**LOCATION SKETCH/COMMENTS:**



# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 2 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | sm: Black SAND, very fine grained, some Silt, slightly moist. | sm | | Organic Vapor = 0.0ppm | | KZ0009 | pushed | HSA - Miller Drilling Company - 2/22/00<br>Rec 1.3'/2.0' (0-2' bgs) |
| | 1 | cl: Yellowish red CLAY, some Silt, slightly moist, low plasticity. | cl | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 2 | cl: Yellowish red CLAY, some Silt, slightly moist, low plasticity. | cl | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.0'/2.0' (2-4' bgs) |
| | 3 | NA: No recovery. | NA | | | | | | |
| | 4 | cl: Yellowish red CLAY, some Silt, slightly moist, low plasticity. | cl | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.9'/2.0' (4-6' bgs) |
| 5 | 5 | ml: Brownish yellow SILT, some Clay with minor Chert fragments, slightly moist, low plasticity. | ml | | | | | | |
| | 6 | NA: No recovery. | NA | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.7'/2.0' (6-8' bgs) |
| | | ml: Brownish yellow SILT, some Clay with minor Chert fragments, slightly moist, low plasticity. | ml | | | | | | |
| | 7 | sc: Red and yellow mottled sandy CLAY and very fine SAND, trace Chert. | sc | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 8 | cl: Reddish yellow CLAY, trace Chert. | cl | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.9'/2.0' (8-10' bgs) |
| | 9 | | | | | | | | |
| 10 | 10 | NA: No recovery. | NA | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 3 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 11 | cl: Reddish yellow CLAY, trace Chert. | cl | | Organic Vapor = 0.0ppm | | KZ0010 | pushed | Rec 1.6'/2.0' (10-12' bgs) |
| | 12 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 13 | | NA | | | | | | |
| | 14 | cl: Reddish yellow CLAY, some Silt, stiff, low plasticity. | | | Organic Vapor = 0.0ppm | | | 4 7 12 14 | Rec 1.8'/2.0' (14-16' bgs) |
| 15 | 15 | | cl | | | | | | |
| | 16 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 17 | | | | | | | | |
| | | | NA | | | | | | |
| | 18 | | | | | | | | |
| | 19 | cl: Yellow silty CLAY, trace weathered Chert, dry, stiff to very stiff. | | | Organic Vapor = 0.0ppm | | | 3 7 9 12 | Rec 1.9'/2.0' (19-21' bgs) |
| 20 | 20 | | cl | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 4 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 21 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 22 | | | | | | | | |
| | | | NA | | | | | | |
| | 23 | | | | | | | | |
| | 24 | ml: Brownish yellow SILT, some Clay, trace weathered Chert, dry to slightly moist, stiff, friable, low plasticity. | | | Organic Vapor = 0.0ppm | | | 4 5 9 11 | Rec 1.8'/2.0' (24-26' bgs) |
| 25 | 25 | | ml | | | | | | |
| | 26 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 27 | | | | | | | | |
| | | | NA | | | | | | |
| | 28 | | | | | | | | |
| | 29 | cl: Light brownish yellow CLAY, trace weathered Chert fragments, slightly moist, moderate plasticity, medium stiff to stiff. | | | Organic Vapor = 0.0ppm | | | 3 4 7 9 | Rec 1.8'/2.0' (29-31' bgs) |
| 30 | 30 | | cl | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 5 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 31 | NA: No recovery. | NA | | | | | | |
| | 32 | NA: No sample collected for lithologic description. | | | | | | | |
| | 33 | | NA | | | | | | |
| | 34 | cl: Grayish brown CLAY with Chert, Sandstone and Shale pebbles, some Silt, slightly moist, moderate to low plasticity, pebbles are rounded to angular. 2" clayey Sand lense at 35.7' bgs. | | | Organic Vapor = 0.0ppm | | | 4 8 10 10 | Rec 1.8'/2.0' (34-36' bgs) |
| 35 | 35 | | cl | | | | | | |
| | 36 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 37 | | | | | | | | |
| | | | NA | | | | | | |
| | 38 | | | | | | | | |
| | 39 | cl-ml: Yellowish red SILT and CLAY with weathered Chert, slightly moist, medium plasticity. Silt lense at 39.5' bgs. | | | Organic Vapor = 0.0ppm | | | 4 5 6 9 | Rec 1.8'/2.0' (39-41' bgs) |
| 40 | 40 | | cl-ml | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 6 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 41 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 42 | | | | | | | | |
| | | | NA | | | | | | |
| | 43 | | | | | | | | |
| | 44 | sp: Greenish black, coarse, angular cherty SAND, trace Clay and Silt, dense, slightly moist, 1.75" diameter Chert at 44.5' bgs. | sp | | Organic Vapor = 0.0ppm | | | | Rec 1.5'/1.5' (44-45.5' bgs) |
| 45 | 45 | cl: Brownish red CLAY, iron and manganese staining red, black and green. | cl | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 46 | | | | | | | | |
| | 47 | | NA | | | | | | |
| | 48 | | | | | | | | |
| | 49 | ml: Grayish yellow SILT, trace red weathered Shale, some Chert, soft to medium stiff, slightly moist. | ml | | Organic Vapor = 0.0ppm | | | 3 3 4 4 | Rec 1.9'/2.0' (49-51' bgs) |
| 50 | 50 | cl: Red CLAY, some Silt, trace weathered Chert. | cl | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 7 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 51 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 52 | | | | | | | | |
| | | | NA | | | | | | |
| | 53 | | | | | | | | |
| | 54 | cl: Red CLAY, some yellow Silt and weathered Chert, moist, moderate plasticity, medium stiff. | cl | | Organic Vapor = 0.0ppm | | | 4 7 9<br>11 | Rec 1.0'/2.0' (54-56' bgs) |
| 55 | 55 | NA: No recovery. | | | | | | | |
| | | | NA | | | | | | |
| | 56 | NA: No sample collected for lithologic description. | | | | | | | |
| | 57 | | | | | | | | |
| | | | NA | | | | | | |
| | 58 | | | | | | | | |
| | 59 | cl: Red CLAY, some Silt, weathered Chert, trace weathered Shale, very moist, stiff. | cl | | Organic Vapor = 0.0ppm | | | 4 6 6<br>10 | Rec 1.0'/2.0' (59-61' bgs) |
| 60 | 60 | NA: No recovery. | | | | | | | |
| | | | NA | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 8 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 61 | NA: No sample collected for lithologic description. | | | | | | | Very soft drilling. No water in borehole after sitting overnight. |
| | 62 | | NA | | | | | | |
| | 63 | | | | | | | | |
| | 64 | cl: Brownish red CLAY, some Silt and Sand, Chert and Iron concretions, very moist, stiff moderate plasticity. | cl | | Organic Vapor = 0.0ppm | | | 3 4 7 8 | Rec 1.2'/2.0' (64-66' bgs) |
| 65 | 65 | NA: No recovery. | NA | | | | | | |
| | 66 | NA: No sample collected for lithologic description. | | | | | | | |
| | 67 | | NA | | | | | | |
| | 68 | | | | | | | | |
| | 69 | cl: Red CLAY, some Chert. | cl | | Organic Vapor = 0.0ppm | | | 7 9 14 10 | Rec 1.8'/2.0' (69-71' bgs) |
| 70 | 70 | ml: Grayish yellow SILT, weathered Shale at top, moist, stiff to very stiff. | ml | | | | | | |
| | 71 | ml: Yellowish red SILT, some Clay, thin bedding to 70.8' bgs. | ml / NA | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP04

Project: Fort McClellan | Geologist: John Hofer | Sheet 9 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 71 | NA: No recovery. | | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 72 | | NA | | | | | | |
| | 73 | | | | | | | | |
| | 74 | cl: Red CLAY, some Chert and some Sand, medium to coarse, very moist to wet, stiff to very stiff, moderate to low plasticity. | cl | | Organic Vapor = 0.0ppm | | | 6 11 12 12 | Rec 1.4'/2.0' (74-76' bgs) |
| 75 | 75 | ml: Yellowish gray SILT, some Clay, thin bedded, weathered Shale at 75.6' bgs. | ml | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 76 | NA: No sample collected for lithologic description. | | | | | | | |
| | 77 | | | | | | | | |
| | | | NA | | | | | | |
| | 78 | | | | | | | | |
| | 79 | cl: Red CLAY, some medium to coarse Sand and Silt. | | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.8'/2.0' (79-81' bgs) |
| 80 | 80 | | cl | | | | | | |
| | 81 | NA: No recovery. | NA | | | | | | Bottom of borehole at 81' bgs |

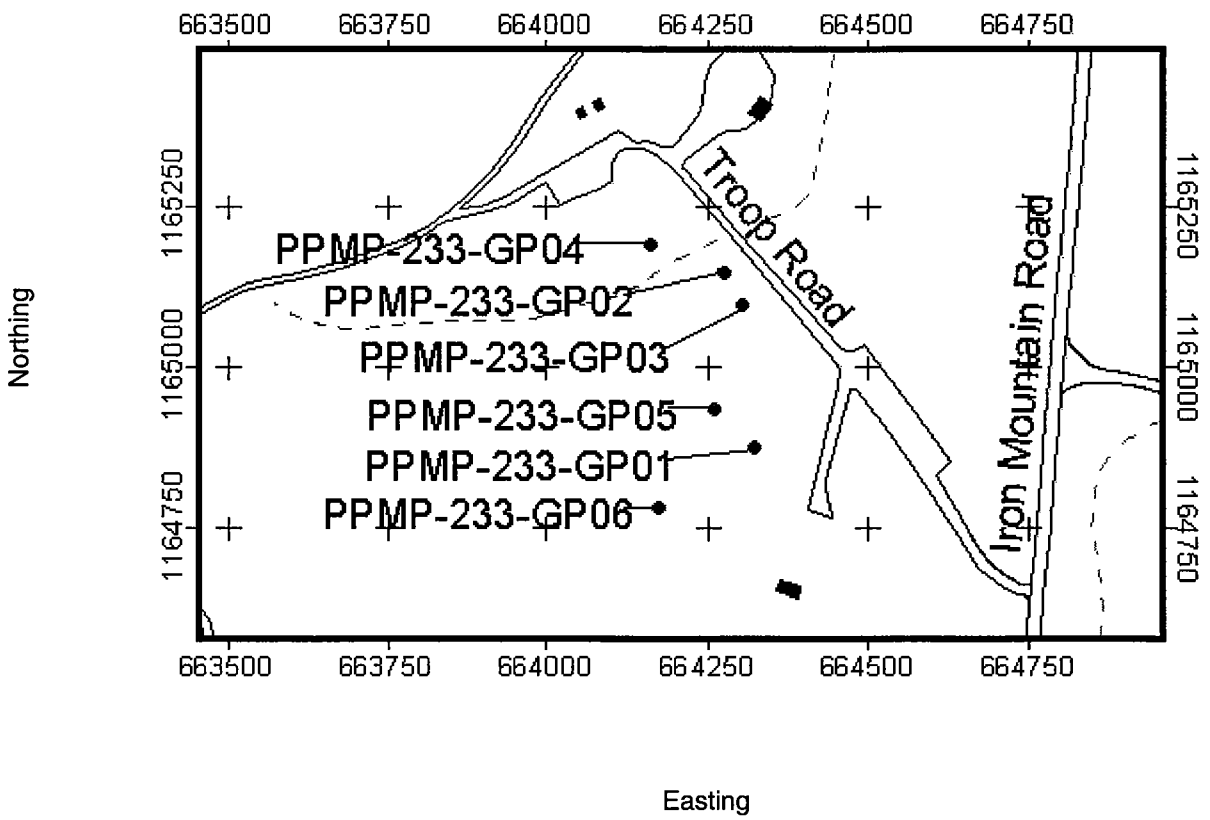
# HTRW DRILLING LOG

| | | |
|---|---|---|
| District: **Mobile USACE** | | **HOLE NUMBER** PPMP-233-GP05 |
| 1. Company name: **Shaw Environmental, Inc.** | 2. Drill Subcontractor: Miller Drilling Company | Sheet 1 of 8 sheets |

| | |
|---|---|
| 3. Project: Fort McClellan | 4. Location: **Calhoun County, Alabama** |
| 5. Name of driller: Ken Gobell | 6. Mfr. designation of drill: CME-550X |
| 7. Sizes and types of drilling and sampling equipment:<br>Hollow Stem Auger<br>HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons | 8. Hole location: Fill Area West of Range 19, Parcel 233 |
| | 9. Surface elevation (feet above mean sea level): 830.67 |
| | 10. Date started: 02/08/00 / 11. Date completed: 03/15/00 |
| 12. Overburden thickness (feet bgs): 69 | 15. Depth groundwater encountered (feet bgs): 55 |
| 13. Depth drilled into rock (feet bgs): 0 | 16. Depth to water and elapsed time after drilling completed (feet bgs): NA |
| 14. Total depth of hole (feet bgs): 69 | 17. Other water level measurements (specify): NA |

| 18. Geotechnical samples: | Collected: | Disturbed: | Undisturbed: | 19. Total no. of core boxes: NA | | |
|---|---|---|---|---|---|---|
| | NA | NA | NA | | | |
| 20. Samples for chemical analysis: | VOC | Metals | Other (specify) | Other (specify) | Other (specify) | 21. Total core recovery: |
| | Yes/SVOCs | Yes | PCBs, Explosives | Herbicides | Pesticides | NA |
| 22. Disposition of hole: | Backfilled | Monitoring well | Other (specify) | Geologist: | | |
| | NA | 2" Permanent | ABANDONED | John Hofer | | |

**LOCATION SKETCH/COMMENTS:**



# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP05

Project: Fort McClellan | Geologist: John Hofer | Sheet 2 of 8 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 830 | 0 | sm: Black SAND with Silt fine grained. | sm | | Organic Vapor = 12.1ppm | | KZ0011 | pushed | HSA - Miller Drilling Company - 2/8/00<br>Rec 1.5'/2.0' (0-2' bgs) |
| | 1 | | | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 2 | ml: Yellowish brown SILT, some Sand, some Clay, moist, low plasticity. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.8'/2.0' (2-4' bgs) |
| | 3 | | | | | | | | |
| | 4 | NA: No recovery. | NA | | | | | | |
| | | ml: Yellowish brown SILT, some Sand, some Clay, moist, low plasticity. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.9'/2.0' (4-6' bgs) |
| | 5 | | | | | | | | |
| 825 | 6 | NA: No recovery. | NA | | | | | | |
| | | ml: Yellowish brown SILT, some Sand, some Clay, moist, low plasticity. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.8'/2.0' (6-8' bgs) |
| | 7 | | | | | | | | |
| | 8 | NA: No recovery. | NA | | | | | | |
| | | ml: Brownish yellow SILT, dry, low plasticity. | ml | | Organic Vapor = 0.0ppm | | | | Rec 1.7'/2.0' (8-10' bgs) |
| | 9 | | | | | | | | |
| | 10 | NA: No recovery. | NA | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP05

Project: Fort McClellan | Geologist: John Hofer | Sheet 3 of 8 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | | ml: Brownish yellow SILT, dry, low plasticity. | ml | | Organic Vapor = 0.0ppm | | KZ0012 | pushed | Rec 2.0'/2.0' (10-12' bgs) |
| 820 | 11 | | | | | | | | |
| | | cl: Brownish yellow CLAY, some Silt, slightly moist. | cl | | | | | | |
| | 12 | NA: No sample collected for lithologic description. | NA | | | | | | |
| | 13 | | | | | | | | |
| | 14 | cl: Brownish yellow CLAY, some Silt, slightly moist. | cl | | Organic Vapor = 0.0ppm | | | 5 6 9 8 | Rec 1.5'/2.0' (14-16' bgs) |
| | 15 | | | | | | | | |
| 815 | | NA: No recovery. | NA | | | | | | |
| | 16 | NA: No sample collected for lithologic description. | | | | | | | |
| | 17 | | | | | | | | |
| | 18 | | | | | | | | |
| | 19 | ml: Brownish yellow SILT. | ml | | Organic Vapor = 0.0ppm | | | 3 8 7 7 | Rec 1.8'/2.0' (19-21' bgs) |
| | 20 | cl: Yellowish brown CLAY, stiff, moderate | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP05

Project: Fort McClellan | Geologist: John Hofer | Sheet 4 of 8 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | | plasticity. | cl | | | | | | |
| 810 | | | | | | | | | |
| | 21 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 22 | | | | | | | | |
| | | | NA | | | | | | |
| | 23 | | | | | | | | |
| | 24 | cl-ml: Interbedded SILT and CLAY, medium stiff, moist. | | | Organic Vapor = 0.0ppm | | | 3 5 8 7 | Rec 1.9'/2.0' (24-26' bgs) |
| | 25 | | cl-ml | | | | | | |
| 805 | | | | | | | | | |
| | 26 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 27 | | | | | | | | |
| | | | NA | | | | | | |
| | 28 | | | | | | | | |
| | 29 | cl-ml: Interbedded SILT and CLAY, medium stiff, moist. | | | Organic Vapor = 0.0ppm | | | 5 6 9 8 | Rec 1.8'/2.0' (29-31' bgs) |
| | 30 | | cl-ml | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP05

Project: Fort McClellan | Geologist: John Hofer | Sheet 5 of 8 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 800 | 31 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 32 | | | | | | | | |
| | | | NA | | | | | | |
| | 33 | | | | | | | | |
| | 34 | ml: Brown SILT with Clay lenses, medium stiff, moist. | | | Organic Vapor = 0.0ppm | | | 2 4 5 7 | Rec 2.0'/2.0' (34-36' bgs) |
| | 35 | | ml | | | | | | |
| 795 | 36 | NA: No sample collected for lithologic description. | | | | | | | |
| | 37 | | | | | | | | |
| | | | NA | | | | | | |
| | 38 | | | | | | | | |
| | 39 | ml: Brown SILT, some Sand and Clay, rock fragments. | | | Organic Vapor = 0.0ppm | | | 4 7 9 11 | Rec 1.9'/2.0' (39-41' bgs) |
| | 40 | | ml | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP05

Project: Fort McClellan | Geologist: John Hofer | Sheet 6 of 8 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 790 | 41 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 42 | | | | | | | | |
| | | | NA | | | | | | |
| | 43 | | | | | | | | |
| | 44 | cl: Brown CLAY, some Sand and Chert, very stiff. | cl | | Organic Vapor = 0.0ppm | | | 10 15 17 22 | Rec 1.5'/2.0' (44-46' bgs) |
| | 45 | | | | | | | | |
| 785 | | NA: No recovery. | NA | | | | | | |
| | 46 | NA: No sample collected for lithologic description. | | | | | | | |
| | 47 | | | | | | | | |
| | 48 | | | | | | | | |
| | 49 | | | | | | | | |
| | 50 | | NA | | | | | | |
| 780 | | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP05

Project: Fort McClellan | Geologist: John Hofer | Sheet 7 of 8 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 51 | | | | | | | | |
| | 52 | | | | | | | | |
| | 53 | | | | | | | | |
| | 54 | sh: Weathered brown SHALE. | sh | | | | | 50/0.2' | Rec 0.2'/0.2' (54-54.2' bgs) |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 55 | | | | | | | | |
| 775 | | | | | | | | | |
| | 56 | | | | | | | | |
| | | | NA | | | | | | |
| | 57 | | | | | | | | |
| | 58 | | | | | | | | |
| | 59 | sh: Weathered black SHALE. | sh | | | | | 50/0.2' | Rec 0.2'/0.2' (59-59.2' bgs) |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 60 | | | | | | | | |
| 770 | | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP05

Project: Fort McClellan | Geologist: John Hofer | Sheet 8 of 8 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 61 | | | | | | | | 61 |
| | 62 | | | | | | | | 62 |
| | 63 | | | | | | | | 63 |
| | 64 | | NA | | | | | | 64 |
| | | | | | | | | | Auger refusal at 64.5' bgs. Original borehole grouted up. |
| | 65 | | | | | | | | 65 |
| 765 | | | | | | | | | |
| | 66 | | | | | | | | 66 |
| | 67 | | | | | | | | 67 |
| | 68 | | | | | | | | 68 |
| | | | | | | | | | Auger refusal at 69' bgs in offset. Bottom of borehole at 69' bgs |
| | 69 | | | | | | | | 69 |

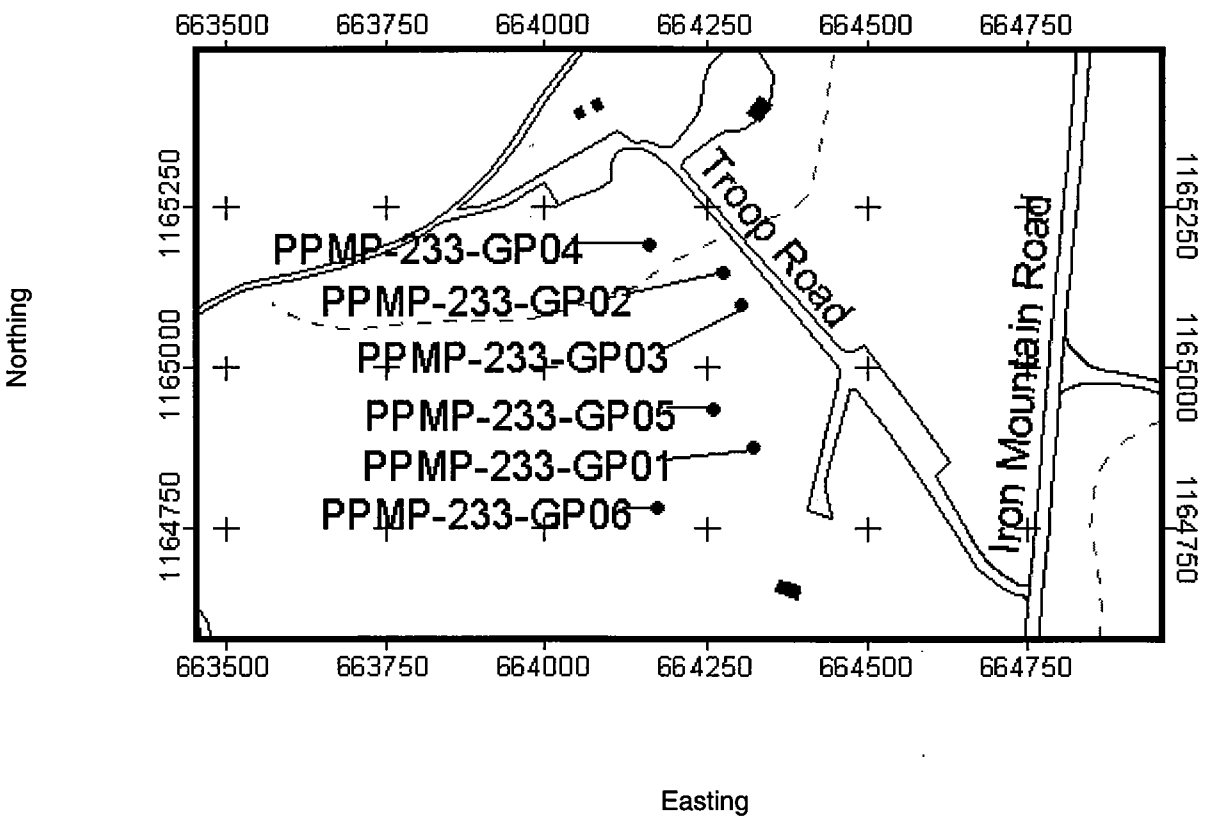
# HTRW DRILLING LOG

| | | |
|---|---|---|
| District: **Mobile USACE** | | **HOLE NUMBER** PPMP-233-GP06 |
| 1. Company name: **Shaw Environmental, Inc.** | 2. Drill Subcontractor: Miller Drilling Company | Sheet 1 of 9 sheets |

| | |
|---|---|
| 3. Project: Fort McClellan | 4. Location: **Calhoun County, Alabama** |
| 5. Name of driller: Ken Gobell/Jason Ratliff | 6. Mfr. designation of drill: CME-550X |
| 7. Sizes and types of drilling and sampling equipment:<br>Hollow Stem Auger<br>HSA - 5'x4.25" ID Augers, 2'x2" Steel Split Spoons | 8. Hole location: Fill Area West of Range 19, Parcel 233 |
| | 9. Surface elevation (feet above mean sea level): 841.04 |
| | 10. Date started: 02/24/00 / 11. Date completed: 02/24/00 |
| 12. Overburden thickness (feet bgs): 80.5 | 15. Depth groundwater encountered (feet bgs): 64 |
| 13. Depth drilled into rock (feet bgs): 0.5 | 16. Depth to water and elapsed time after drilling completed (feet bgs): NA |
| 14. Total depth of hole (feet bgs): 81 | 17. Other water level measurements (specify): NA |

| 18. Geotechnical samples: | Collected: | Disturbed: | Undisturbed: | 19. Total no. of core boxes: NA | | |
|---|---|---|---|---|---|---|
| | NA | NA | NA | | | |
| 20. Samples for chemical analysis: | VOC | Metals | Other (specify) | Other (specify) | Other (specify) | 21. Total core recovery: |
| | Yes/SVOCs | Yes | PCBs | Herbicides | Pesticides | NA |
| 22. Disposition of hole: | Backfilled | Monitoring well | Other (specify) | Geologist: | | |
| | NA | 2" Permanent | ABANDONED | John Hofer | | |

**LOCATION SKETCH/COMMENTS:**



# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 2 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | 0 | sm: Black SILT and SAND. | sm | | Organic Vapor = 0.0ppm | | KZ0013 | pushed | HSA - Miller Drilling Company - 2/24/00<br>Rec 1.2'/2.0' (0-2' bgs) |
| 840 | 1 | cl: Red CLAY, some Sand and Sandstone fragments. | cl | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| | 2 | cl: Red CLAY, some Silt, iron and Chert pebbles, very stiff, dry. | cl | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.3'/2.0' (2-4' bgs) |
| | 3 | NA: No recovery. | NA | | | | | | |
| | 4 | ml: Yellowish red SILT, very stiff, dry to slightly moist. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.3'/2.0' (4-6' bgs) |
| | 5 | NA: No recovery. | NA | | | | | | |
| 835 | 6 | ml: Yellowish red SILT, very stiff, dry to slightly moist. | ml | | Organic Vapor = 0.0ppm | | | pushed | Rec 1.8'/2.0' (6-8' bgs) |
| | 7 | | | | | | | | |
| | 8 | NA: No recovery. | NA | | | | | | |
| | | cl: Brownish red CLAY, some Sand, sandstone Gravel and iron concretions, stiff, slightly moist. | cl | | Organic Vapor = 0.0ppm | | KZ0014 | pushed | Rec 1.7'/2.0' (8-10' bgs) |
| | 9 | | | | | | | | |
| | 10 | NA: No recovery. | NA | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 3 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | | cl: Brownish red CLAY, some Sand, sandstone Gravel and iron concretions, stiff, slightly moist. | cl | | | | | pushed | Rec 0.2'/0.2' (10-10.2' bgs)<br><br>UXO refusal at 10', moved south 20'. |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| 830 | 11 | | | | | | | | |
| | 12 | | NA | | | | | | |
| | 13 | | | | | | | | |
| | 14 | ml: Brown SILT, some Clay, very stiff, no plasticity, friable, dry. | ml | | Organic Vapor = 0.0ppm | | | 3 6 9<br>14 | Rec 0.9'/2.0' (14-16' bgs) |
| | 15 | NA: No recovery. | NA | | | | | | |
| 825 | 16 | NA: No sample collected for lithologic description. | | | | | | | |
| | 17 | | NA | | | | | | |
| | 18 | | | | | | | | |
| | 19 | ml: Brownish red weathered SHALE, low angle bedding, dry, friable. | ml | | Organic Vapor = 0.0ppm | | | 10 12<br>16 27 | Rec 1.1'/2.0' (19-21' bgs) |
| | 20 | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 4 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | | NA: No recovery. | NA | | | | | | |
| 820 | 21 | NA: No sample collected for lithologic description. | | | | | | | |
| | 22 | | NA | | | | | | |
| | 23 | | | | | | | | |
| | 24 | cl: Brownish yellow CLAY, some Silt, Silt lenses, light gray and dark red mottling, black stain on fracture, trace of weathered Chert, slightly moist, moderate plasticity, stiff to very stiff. | cl | | Organic Vapor = 0.0ppm | | | 4 8 10 15 | Rec 1.9'/2.0' (24-26' bgs) |
| | 25 | | | | | | | | |
| 815 | 26 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 27 | | NA | | | | | | |
| | 28 | | | | | | | | |
| | 29 | ch: Yellowish brown CLAY, little Silt, slightly moist, high plasticity. | ch | | Organic Vapor = 0.0ppm | | | 5 7 10 12 | Rec 0.8'/2.0' (29-31' bgs) |
| | 30 | NA: No recovery. | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 5 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | | | NA | | | | | | |
| 810 | 31 | NA: No sample collected for lithologic description. | | | | | | | |
| | 32 | | | | | | | | |
| | | | NA | | | | | | |
| | 33 | | | | | | | | |
| | 34 | cl: Brown CLAY, some Silt with very fine Sand lenses, stiff, moderate plasticity, slightly moist, dense. | | | Organic Vapor = 0.0ppm | | | 4 8 6 17 | Rec 1.8'/2.0' (34-36' bgs) |
| | 35 | | cl | | | | | | |
| | | sp: Grayish brown SAND, some 1.5" diameter fine to medium grained sandstone Gravel. | sp | | | | | | |
| 805 | 36 | | NA | | | | | | |
| | | NA: No recovery. | | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 37 | | | | | | | | |
| | | | NA | | | | | | |
| | 38 | | | | | | | | |
| | 39 | sc: Interbedded CLAY and fine to coarse SAND, brown to red, bedding 6 to 8 inches thick, Sand is poorly sorted with some Clay and Silt, stiff, medium dense, moist. | | | Organic Vapor = 0.0ppm | | | 9 10 10 13 | Rec 1.9'/2.0' (39-41' bgs) |
| | 40 | | sc | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 6 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 800 | 41 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 42 | | NA | | | | | | |
| | 43 | | | | | | | | |
| | 44 | sm: Brown SILT and SAND, very fine grained, moist, stiff to medium dense. | sm | | Organic Vapor = 0.0ppm | | | 5 8 8 10 | Rec 1.8'/2.0' (44-46' bgs) |
| | 45 | gm: Quartzite GRAVEL, weathered, broken, with fine to coarse Sand, some Silt and Clay. | gm | | | | | | |
| 795 | 46 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | Very soft drilling. |
| | 47 | | NA | | | | | | |
| | 48 | | | | | | | | |
| | 49 | cl: Brown CLAY, Silt and Sand at 49.8-50.2'bgs, some Quartzite, wet to moist, stiff, moderate plasticity. | cl | | Organic Vapor = 0.0ppm | | | 4 5 7 12 | Rec 1.9'/2.0' (49-51' bgs) |
| | 50 | cl-ml: Brown SILT, grading to CLAY. | cl- | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 7 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| | | | ml | | | | | | |
| 790 | 51 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 52 | | | | | | | | |
| | | | NA | | | | | | |
| | 53 | | | | | | | | |
| | 54 | ml: Brown SILT, some Quartz, moist to wet, stiff to dense. | ml | | Organic Vapor = 0.0ppm | | | 3 7 11 19 | Rec 1.2'/2.0' (54-56' bgs) |
| | 55 | sp: Quartz SAND. | sp | | | | | | |
| | | NA: No recovery. | NA | | | | | | |
| 785 | 56 | NA: No sample collected for lithologic description. | | | | | | | |
| | 57 | | | | | | | | Easy drilling with a lot of chatter (rocky). |
| | | | NA | | | | | | |
| | 58 | | | | | | | | |
| | 59 | sm: Brown SILT, some very fine Sand, weathered Quartz at 59.7'bgs approximately 45 degrees, moist, very stiff, medium dense. | sm | | Organic Vapor = 0.0ppm | | | 7 9 12 17 | Recovery not recorded (59-61' bgs) |
| | 60 | sc: Brown to yellowish brown, medium to coarse SAND, some Clay, moist, medium dense. | sc | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 8 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 780 | 61 | NA: No sample collected for lithologic description. | | | | | | | |
| | 62 | | NA | | | | | | |
| | 63 | | | | | | | | |
| | 64 | cl-ml: Brown SILT and CLAY, some quartz Sand and Gravel, moist to very moist, stiff. | | | | | | 6 6 7 7 | Rec 1.9'/2.0' (64-66' bgs) |
| | 65 | | cl-ml | | | | | | |
| 775 | 66 | NA: No recovery. | NA | | | | | | |
| | | NA: No sample collected for lithologic description. | | | | | | | |
| | 67 | | | | | | | | |
| | | | NA | | | | | | |
| | 68 | | | | | | | | |
| | 69 | ml: Brown SILT, some Clay, trace quartz Sand, soft, very moist, moderate plasticity. | | | | | | 1 1 3 2 | Recovery not recorded (69-71' bgs) |
| | | | ml | | | | | | |
| | 70 | | | | | | | | |
| | | ml: Brown SILT and SAND, some quartzite Gravel. | | | | | | | |
| | | | ml | | | | | | |
| | 71 | | | | | | | | |

# HTRW DRILLING LOG (Continuation Sheet)

HOLE NUMBER: PPMP-233-GP06

Project: Fort McClellan | Geologist: John Hofer | Sheet 9 of 9 sheets

| Elev. (a) | Depth (b) | Description of Materials (c) | USCS / Lithology | Graphic | Field screening results (d) | Geotech sample or core box no. (e) | Analytical sample no. (f) | Blow counts (g) | Remarks (h) |
|---|---|---|---|---|---|---|---|---|---|
| 770 | 71 | NA: No sample collected for lithologic description. | | | | | | | |
| | 72 | | NA | | | | | | |
| | 73 | | | | | | | | |
| | 74 | sm: Brown fine to coarse SAND and SILT, some Clay, some angular quartz and quartzite Gravel, loose, wet to saturated. | sm | | | | | 2 2 2 2 | Rec 1.2'/2.0' (74-76' bgs) |
| | | NA: No recovery. | | | | | | | |
| | 75 | | NA | | | | | | |
| 765 | 76 | NA: No sample collected for lithologic description. | | | | | | | |
| | 77 | | | | | | | | Very soft drilling. |
| | 78 | | NA | | | | | | |
| | 79 | | | | | | | | Easy drilling with a lot of chatter (rocky). |
| | 80 | | | | | | | | |
| | | ls: LIMESTONE. | ls | | | | | | Auger refusal at 81' bgs<br>Bottom of borehole at 81' bgs |
| | 81 | | | | | | | | |

# WELL CONSTRUCTION LOGS

# MONITORING WELL INSTALLATION DETAIL

**PROJECT:** Fort McClellan
**LOCATION:** Anniston, AL
**CLIENT:** USACE Mobile District
**CONTRACTOR:** Miller Drilling Company
**DRILLER:** Robert Tullier
**SHAW FIELD REPRESENTATIVE:** J. Tarr/J. Hofer

**WELL NO:** PPMP-233-GP03
**DRILLING METHOD:** Air Rotary
**INSTALLATION DATE:** 18-MAR-00
**NORTHING:** 1165091.22
**EASTING:** 664302.43
**HORIZONTAL SURVEY DATUM:** NAD83
**VERTICAL SURVEY DATUM:** NAVD88
**JOB NO:** 796886

GROUND SURFACE ELEVATION* 825.99

TOP of WELL CASING or RISER PIPE
EL* 828.31 STICKUP 2.32

**SURFACE SEAL**
TYPE of SURFACE SEAL: Concrete
MINIMUM THICKNESS: 4 inches

**ANNULAR SPACE SEAL TYPE**
Grout

APPROXIMATE DIAMETER of BOREHOLE (inches) 8

**TOP OF SEAL**

| SEAL MATERIAL | SEAL START DEPTH |
|---|---|
| Bentonite | 47 |

**FILTER PACK**

| TYPE of SAND PACK AROUND SCREEN | TOP OF SAND PACK |
|---|---|
| Sand No 1 | 51 |

**CASING**

| TYPE of RISER MATERIAL (Flush Threaded) | INSIDE DIAMETER of RISER (inches) |
|---|---|
| PVC SCH 40 | 2 |

**SCREEN**

| TYPE of SCREEN MATERIAL | SLOT SIZE (inches) | INSIDE DIAMETER (inches) |
|---|---|---|
| PVC SCH 40 | 0.010 | 2 |

TOP OF SCREENED INTERVAL
EL* 768.29 DEPTH 57.7

BOTTOM of SCREENED INTERVAL
EL* 748.29 DEPTH 77.7

BOTTOM of SUMP and WELL
EL* 747.99 DEPTH 78

BOTTOM of BOREHOLE
EL* 747.99 DEPTH 78

*All elevations (EL) are referenced to MSL.
All depths and heights are given in feet and are referenced to the ground surface.

# MONITORING WELL INSTALLATION DETAIL

**PROJECT:** Fort McClellan
**LOCATION:** Anniston, AL
**CLIENT:** USACE Mobile District
**CONTRACTOR:** Miller Drilling Company
**DRILLER:** Ken Gobell
**SHAW FIELD REPRESENTATIVE:** John Hofer

**WELL NO:** PPMP-233-GP04
**DRILLING METHOD:** Hollow Stem Auger
**INSTALLATION DATE:** 23-FEB-00
**NORTHING:** 1165184.78
**EASTING:** 664160.21
**HORIZONTAL SURVEY DATUM:** NAD83
**VERTICAL SURVEY DATUM:** NAVD88
**JOB NO:** 796886

GROUND SURFACE ELEVATION* 827.06

TOP of WELL CASING or RISER PIPE
EL* 829.54 STICKUP 2.48

**SURFACE SEAL**
TYPE of SURFACE SEAL: Concrete
MINIMUM THICKNESS: 4 inches

**ANNULAR SPACE SEAL TYPE**
Grout

APPROXIMATE DIAMETER of BOREHOLE (inches) 8

**TOP OF SEAL**
SEAL MATERIAL: Bentonite
SEAL START DEPTH: 51

**FILTER PACK**
TYPE of SAND PACK AROUND SCREEN: Sand No 1
TOP OF SAND PACK: 52.9

**CASING**
TYPE of RISER MATERIAL (Flush Threaded): PVC SCH 40
INSIDE DIAMETER of RISER (inches): 2

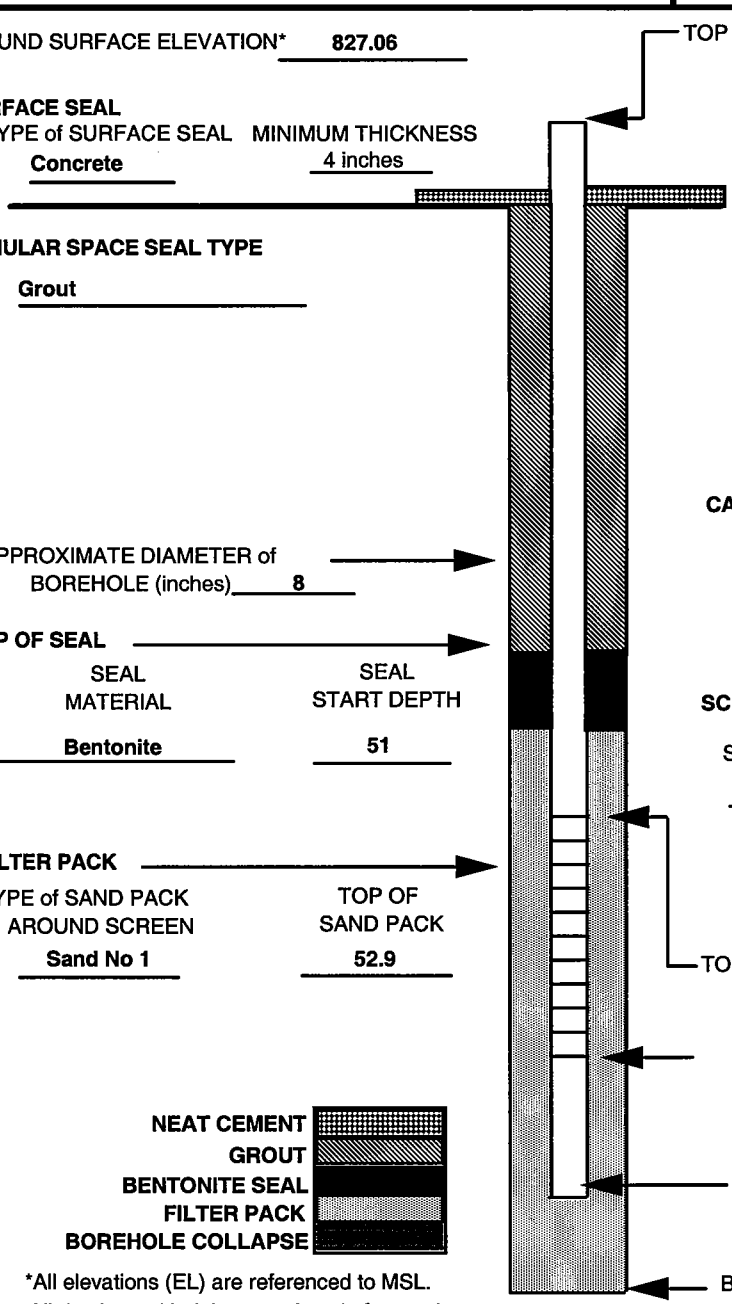
**SCREEN**
TYPE of SCREEN MATERIAL: PVC SCH 40
SLOT SIZE (inches): 0.01
INSIDE DIAMETER (inches): 2

TOP OF SCREENED INTERVAL
EL* 770.06 DEPTH 57

BOTTOM of SCREENED INTERVAL
EL* 750.06 DEPTH 77

BOTTOM of SUMP and WELL
EL* 748.06 DEPTH 79

BOTTOM of BOREHOLE
EL* 746.06 DEPTH 81



NEAT CEMENT
GROUT
BENTONITE SEAL
FILTER PACK
BOREHOLE COLLAPSE

*All elevations (EL) are referenced to MSL.
All depths and heights are given in feet and are referenced to the ground surface.

# MONITORING WELL INSTALLATION DETAIL

**PROJECT:** Fort McClellan
**LOCATION:** Anniston, AL
**CLIENT:** USACE Mobile District
**CONTRACTOR:** Miller Drilling Company
**DRILLER:** Ken Gobell
**SHAW FIELD REPRESENTATIVE:** James Dendy

**WELL NO:** PPMP-233-GP05
**DRILLING METHOD:** Hollow Stem Auger
**INSTALLATION DATE:** 15-MAR-00
**NORTHING:** 1164930.1
**EASTING:** 664258.95
**HORIZONTAL SURVEY DATUM:** NAD83
**VERTICAL SURVEY DATUM:** NAVD88
**JOB NO:** 796886

GROUND SURFACE ELEVATION* 830.67

TOP of WELL CASING or RISER PIPE
EL* 833.23 STICKUP 2.56

**SURFACE SEAL**
TYPE of SURFACE SEAL: Concrete
MINIMUM THICKNESS: 4 inches

**ANNULAR SPACE SEAL TYPE**
Grout

APPROXIMATE DIAMETER of BOREHOLE (inches) 8

**TOP OF SEAL**
SEAL MATERIAL: Bentonite
SEAL START DEPTH: 32

**FILTER PACK**
TYPE of SAND PACK AROUND SCREEN: Sand No 1
TOP OF SAND PACK: 35

**CASING**
TYPE of RISER MATERIAL (Flush Threaded): PVC SCH 40
INSIDE DIAMETER of RISER (inches): 2

**SCREEN**
TYPE of SCREEN MATERIAL: PVC SCH 40
SLOT SIZE (inches): 0.010
INSIDE DIAMETER (inches): 2

TOP OF SCREENED INTERVAL
EL* 791.67 DEPTH 39

BOTTOM of SCREENED INTERVAL
EL* 761.67 DEPTH 69

BOTTOM of SUMP and WELL
EL* 761.67 DEPTH 69

BOTTOM of BOREHOLE
EL* 761.67 DEPTH 69

NEAT CEMENT
GROUT
BENTONITE SEAL
FILTER PACK
BOREHOLE COLLAPSE

*All elevations (EL) are referenced to MSL.
All depths and heights are given in feet and are referenced to the ground surface.

# MONITORING WELL INSTALLATION DETAIL

**PROJECT:** Fort McClellan
**LOCATION:** Anniston, AL
**CLIENT:** USACE Mobile District
**CONTRACTOR:** Miller Drilling Company
**DRILLER:** Jason Ratliff/Ken Gobell
**SHAW FIELD REPRESENTATIVE:** John Hofer

**WELL NO:** PPMP-233-GP06
**DRILLING METHOD:** Hollow Stem Auger
**INSTALLATION DATE:** 24-FEB-00
**NORTHING:** 1164777.03
**EASTING:** 664175.11
**HORIZONTAL SURVEY DATUM:** NAD83
**VERTICAL SURVEY DATUM:** NAVD88
**JOB NO:** 796886

GROUND SURFACE ELEVATION* 841.04

TOP of WELL CASING or RISER PIPE
EL* 843.51 STICKUP 2.46

**SURFACE SEAL**
TYPE of SURFACE SEAL: Concrete
MINIMUM THICKNESS: 4 inches

**ANNULAR SPACE SEAL TYPE**
Grout

APPROXIMATE DIAMETER of BOREHOLE (inches) 8

**TOP OF SEAL**

| SEAL MATERIAL | SEAL START DEPTH |
|---|---|
| Bentonite | 52.5 |

**FILTER PACK**

| TYPE of SAND PACK AROUND SCREEN | TOP OF SAND PACK |
|---|---|
| Sand No 1 | 57.9 |

**CASING**

| TYPE of RISER MATERIAL (Flush Threaded) | INSIDE DIAMETER of RISER (inches) |
|---|---|
| PVC SCH 40 | 2 |

**SCREEN**

| TYPE of SCREEN MATERIAL | SLOT SIZE (inches) | INSIDE DIAMETER (inches) |
|---|---|---|
| PVC SCH 40 | 0.010 | 2 |

TOP OF SCREENED INTERVAL
EL* 780.24 DEPTH 60.8

BOTTOM of SCREENED INTERVAL
EL* 760.24 DEPTH 80.8

BOTTOM of SUMP and WELL
EL* 759.94 DEPTH 81.1

BOTTOM of BOREHOLE
EL* 759.94 DEPTH 81.1

**NEAT CEMENT**
**GROUT**
**BENTONITE SEAL**
**FILTER PACK**
**BOREHOLE COLLAPSE**

*All elevations (EL) are referenced to MSL.
All depths and heights are given in feet and are referenced to the ground surface.

# WELL ABANDONMENT FORMS

IT CORPORATION
A Member of The IT Group

COMPLETED
Permit #28176

# Well Abandonment Form

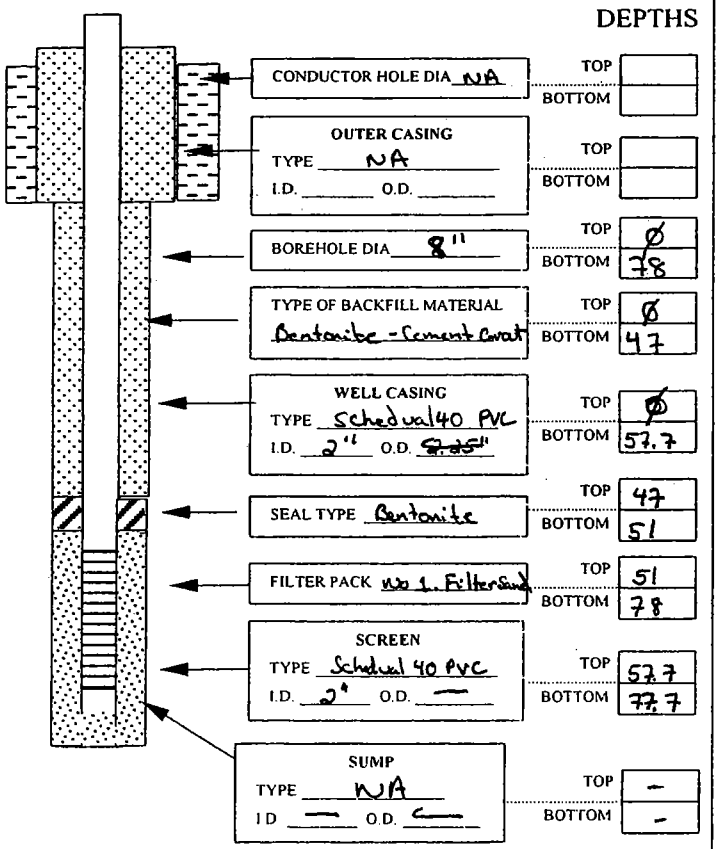
| | |
|---|---|
| Project: FTMC South Atlantic Division TERC | Well Number: PPMP-233-GP03 |
| Client: USACE Mobile District | Well Coordinates: |
| Project No. 774645 | N 1165091.22 E 664302.43 |
| Start Date: 7/25/01 / Date Completed: 7/26/01 | Prepared By: J. Remo / Reference Point for Measurements: Ground Surface & UTM |
| Well Type: (circle one) Residuum; (Bedrock); Temporary; Other_____ | NOTES: Well Construction Summary/ Information form monitoring well installation log. |

## BEFORE ABANDONMENT

### WELL CONSTRUCTION SUMMARY

| | |
|---|---|
| Well No. PPMP-233-GP03 | Well Location/ Parcel: PPMP-233 |
| Total Depth (feet): 78.0 | Drilled By: Jason Ratliffe |
| Date Completed: 3/18/00 | Ground Elevation: 826.99 |
| | TOC Elevation: 828.31 |

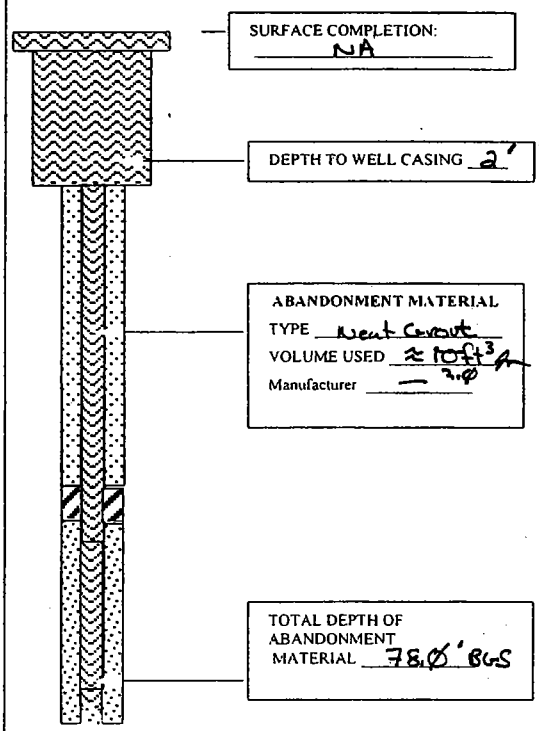
* DOWNHOLE DEPTHS




## AFTER ABANDONMENT:

| | NO | YES | N/A |
|---|---|---|---|
| Concrete Pad Removed | | X | |
| Protective Posts Removed | | X | |
| Outer Casing Removed | | | X |
| Flush Mount Removed | | | X |

Disposition of Well Materials:_____




Notes:

NA = Not Applicable

BGS = Below Ground Surface

* = All Downhole Depths below Ground surface

Neat grout consists of Portland type II Cement, bentonite and potable water.

Figure AC-1

~~9/24/02~~ 9/24/02

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# Well Abandonment Form

Project: FTMC South Atlantic Division TERC

Client: USACE Mobile District

Project No. 796887

Well Number: PPMP-233-GP04

Well Coordinates: N 1165184.78 E 664160.21

Start Date: 9/13/02 | Date Completed: 9/13/02

Prepared By: Kyle Wilson | Reference Point for Measurements: Ground Surface

Well Type: (circle one) (Residuum)

Bedrock Temporary

Other _____

NOTES:

## BEFORE ABANDONMENT

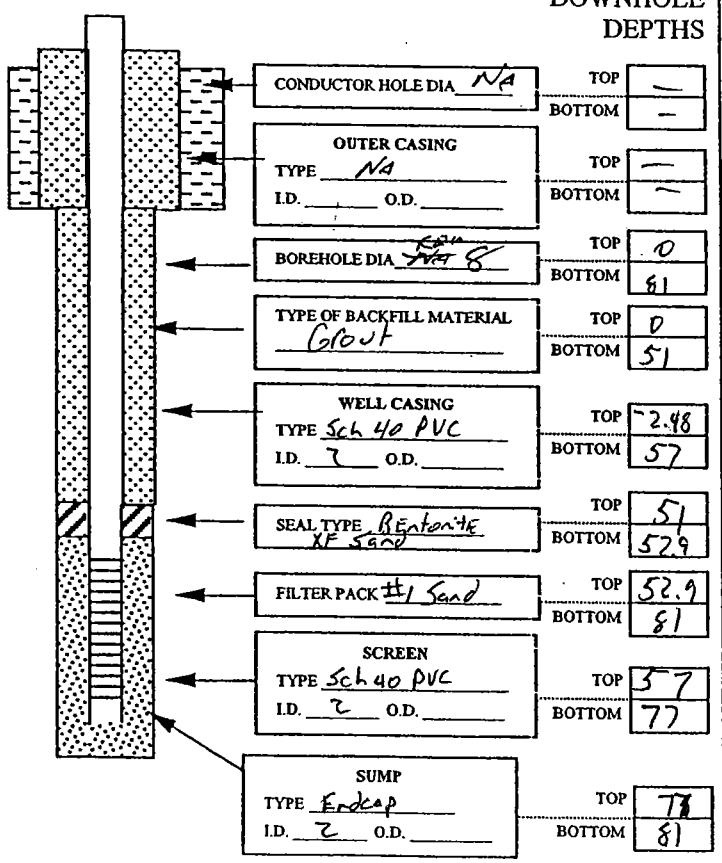
### WELL CONSTRUCTION SUMMARY

Well No. PPMP-233-GP04 | Well Location/ Parcel: 233

Total Depth (feet): 81 | Drilled By: Ken Gobell

Date Completed: 2/23/02 | Ground Elevation: 827.06 | TOC Elevation: 829.54

DOWNHOLE DEPTHS




## AFTER ABANDONMENT:

| | NO | YES | N/A |
|---|---|---|---|
| Concrete Pad Removed | | ✓ | |
| Protective Posts Removed | | ✓ | |
| Outer Casing Removed | | ✓ | |
| Flush Mount Removed | | | ✓ |

Disposition of Well Materials: CONSTRUCTION ROLLOFF

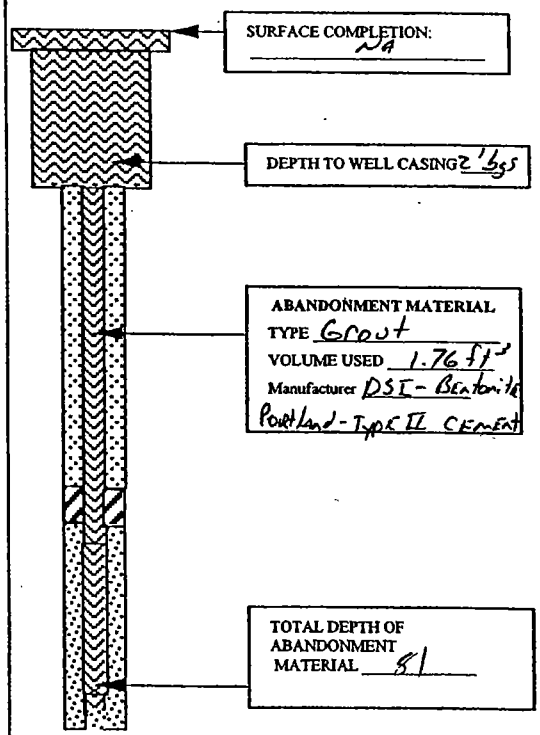


Figure AC-1

COMPLETED 9/24/02

IT CORPORATION
A Member of The IT Group

COPY

# Well Abandonment Form

Project: FTMC South Atlantic Division TERC

Client: USACE Mobile District

Project No. 756887

Well Number: PPMP-233-GP05

Well Coordinates: N 1164930.1 E 664258.95

Start Date: 9/13/02

Date Completed: 9/13/02

Prepared By: Kyle Wilson

Reference Point for Measurements: Ground Surface

Well Type: (circle one) (Residuum) Bedrock Temporary

Other _____

NOTES:

## BEFORE ABANDONMENT

### WELL CONSTRUCTION SUMMARY

Well No. PPMP-233-GP05

Well Location/ Parcel: 233

Total Depth (feet): 69

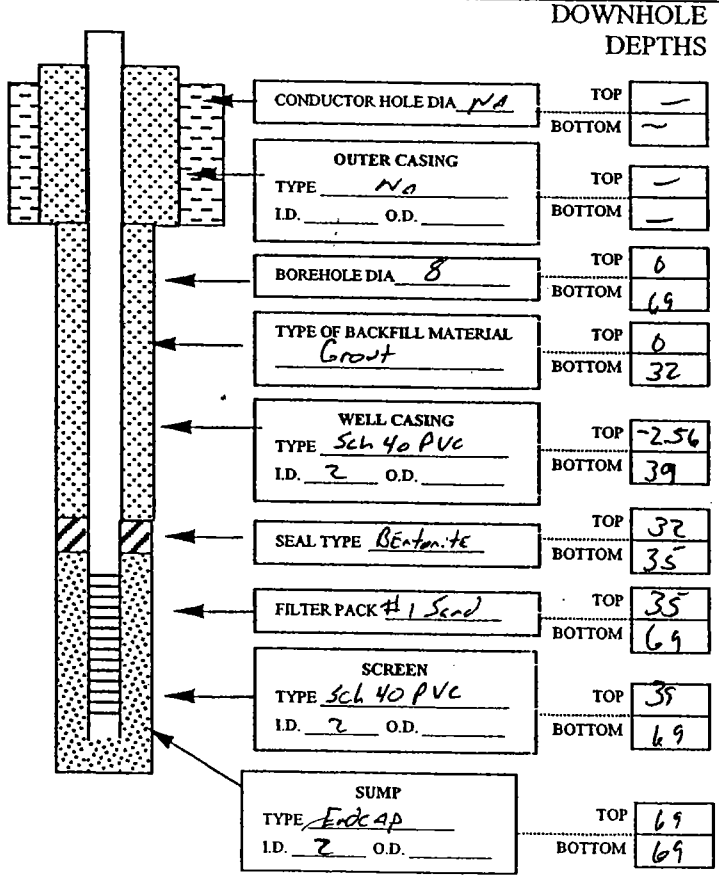
Drilled By: KEN GOSELL

Date Completed: 3/15/00

Ground Elevation: 830.67

TOC Elevation: 832.23

DOWNHOLE DEPTHS




## AFTER ABANDONMENT:

| | NO | YES | N/A |
|---|---|---|---|
| Concrete Pad Removed | | ✓ | |
| Protective Posts Removed | | — | |
| Outer Casing Removed | | ✓ | |
| Flush Mount Removed | | | ✓ |

Disposition of Well Materials: CONSTRUCTION RUNOFF

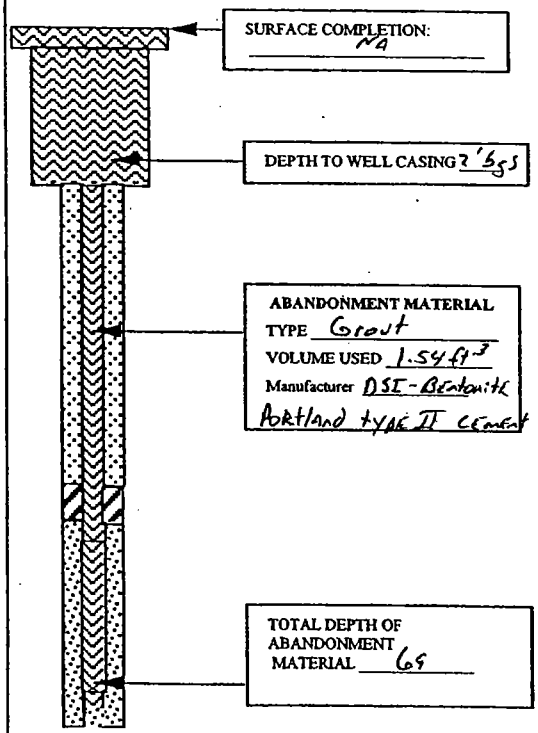


Figure AC-1 9/24/02

IT CORPORATION
A Member of The IT Group

COPY

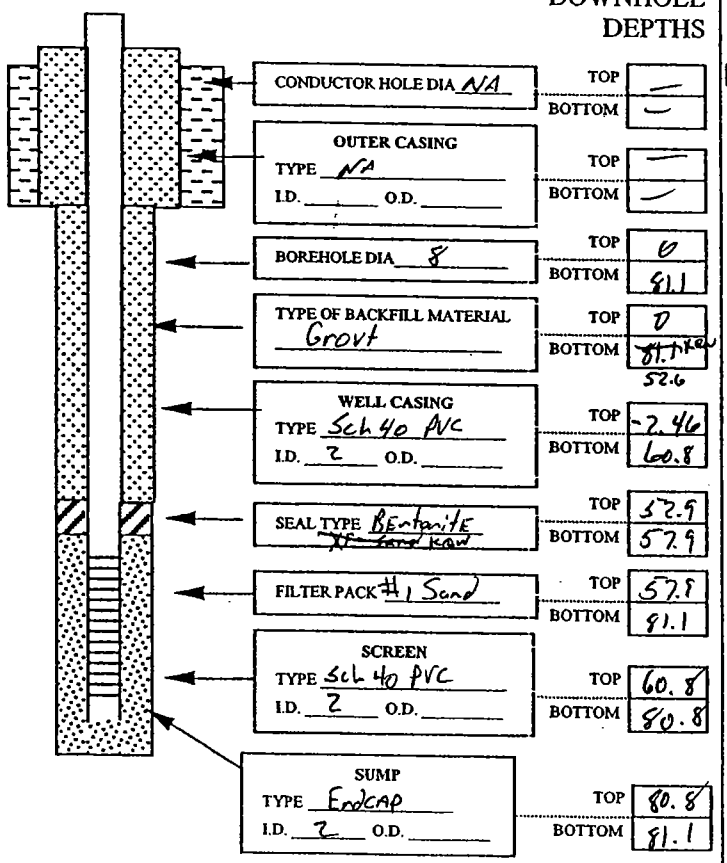
# Well Abandonment Form

| | |
|---|---|
| Project: FTMC South Atlantic Division TERC | Well Number: PPMP-233-GP06 |
| Client: USACE Mobile District | Well Coordinates: N 1164777.03 E 664175.11 |
| Project No. 796887 | |
| Start Date: 9/13/02 / Date Completed: 9/13/02 | Prepared By: K/E Hibon / Reference Point for Measurements: Ground Surface |
| Well Type: (circle one) Residuum / Bedrock / Temporary / Other | NOTES: |

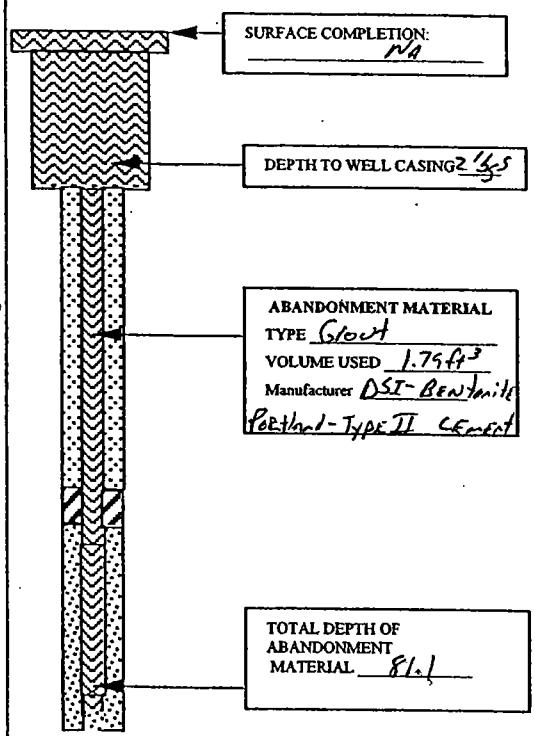
## BEFORE ABANDONMENT

### WELL CONSTRUCTION SUMMARY

| | |
|---|---|
| Well No. PPMP-233-GP06 | Well Location/ Parcel: 233 |
| Total Depth (feet): 81.1 | Drilled By: Jason Ratliff/Ken Gobell |
| Date Completed: 2/24/00 | Ground Elevation: 841.04 |
| | TOC Elevation: 843.51 |




## AFTER ABANDONMENT:

| | NO | YES | N/A |
|---|---|---|---|
| Concrete Pad Removed | | ✓ | |
| Protective Posts Removed | | ✓ | |
| Outer Casing Removed | | ✓ | |
| Flush Mount Removed | | | ✓ |

Disposition of Well Materials: CONSTRUCTION ROLLOFF