



0063 U. S. DEPT. OF THE INTERIOR  
 OFFICE OF SURFACE MINING &  
 RECEIVED Mine Site Evaluation  
 DEC 21 2009 State Program



C1015/032 Incom 2  
 CC: PFC

1. Permittee/Person DIV. OF OIL, GAS & MINING GENWAL COAL CO., INC.		9. Permit Number UT-015-032	10. Permit Type PP
2. Address P. O. BOX 910		11. Field Visit Date 10/28/2009 <small>mm - dd - yyyy</small>	12. Purpose O
3. City East Carbon	4. State UT	13. SRA Present Y	14. Permit Status A
5. Zip Code 84520	6. Phone Number (435) 888-4000	15. Site Status AN	16. Facility Type BG
7. Operator Name, if Different than Permittee UTAHAMERICAN ENERGY INC.		17. OSM Office # 140	18. CCID #
8. Mine Name CRANDALL CANYON # 1		19. Land Code SF	20. M.S.H.A ID # 42-01715
		21. State Abrev. UT	22. County Name EMERY
		23. AVS Permittee Entity ID Number 108257	24. State Office

25. Hours	26. Signature Block	27. Reviewing Official:
<input type="text" value="7.0"/> a. Permit Review	<i>Christine Belka</i>	<i>James Fuler</i>
<input type="text" value="4.5"/> b. Site Visit Time	Signature: Christine Belka ID # 182	Signature:
<input type="text" value="12.0"/> c. Travel Time	Printed Name:	Review Date: <i>11/15/09</i> <small>mm - dd - yyyy</small>
<input type="text" value="4.0"/> d. Report Writing	Date: <input type="text" value="11/13/2009"/>	Is Supplemental MSE Page Used Y/N <input checked="" type="checkbox"/>

Permit Type — Item 10 IP = Interim Program, PP = Permanent Program, NP = No Permit

Purpose Type Codes Item 12  
 Oxx... Oversight Rfx... Reclamation Fees CCR... Citizen Complaint Referral (non site visit)  
 Axx... Assistance Fxx... Federal Actions CC... Citizen Complaint (initial site visit)  
 CCF... Citizen Complaint Follow-up

Joint Inspection — Item 13 A joint inspection is when a state inspector accompanies an OSM inspector any time during the review of the mine site.

Permit Status — Item 14  
 AB... Abandoned: All surface and underground coal mining activities have ceased and operator has left the site without completing reclamation as defined in 30 CFR 840.11(g)  
 A... Active: Coal mining and reclamation activities occurring or permitted but not yet disturbed.  
 AB1... Bond Forfeiture: Bond forfeiture officially in process or completed, and reclamation in progress or not yet commenced.  
 IN... Inactive (Permanent Program Permit): Phase II completed or Temporary Cessation of Operations. (Interim Program Permit) Coal mining completed and reclamation activities initiated.  
 AB2... Partially Reclaimed Forfeiture: Forfeited site where all bonds have been used to reclaim site, but site not reclaimed to Program standards.  
 BR... Bond Release: Reclamation completed and State Regulatory Authority (RA) has released all of the bond (Phase III Release.)  
 AB3... Reclaimed Forfeiture: Forfeited site that has been reclaimed to Program standards.  
 NA... Not Applicable: When site is unpermitted.

Site Status Codes — Item 15  
 ND... No Disturbance: No coal mining and reclamation operations have been started.  
 MC... Mining Complete: No mining activity on site, site regraded and awaiting phase bond release.  
 EX... Coal Exploration: Coal exploration operations have started and where coal mining operations have not begun.  
 TC... Temporary Cessation: The RA has granted cessation of mining pursuant to 30 CFR 816/817.131(b).  
 AP... Active Coal Producing: Coal surface mining activities are occurring.  
 P1... Phase I Release: At least Phase I bond release granted for entire permitted area. For interim permits, partial bond release.  
 AN... Active Non-Producing: Active non-producing facility such as tippie or preparation plant.  
 P2... Phase II Release: At least Phase II bond release for the entire permitted area.  
 NM... No Mining: The Permit Status is active, site is not in Temporary Cessation, no surface coal mining activity, and site not regraded.  
 P3... Phase III Release: Reclamation completed and the RA has released all bond.  
 NS... Non-Site Visit: Status of site not determined.  
 FP... Forfeiture Pending: The RA is pursuing actions to revoke the permit, collect the performance bond(s), and/or reclamation of forfeited site is in progress.  
 FR... Forfeited and Reclaimed: Forfeiture reclamation completed.  
 FO... Abandoned Site: Abandoned site that is permitted but there is no bond.  
 WC... Wildcat: Coal mining and reclamation operations have or are taking place and the activity is not covered by the required permits from the RA.

Facility Type Codes — Item 16  
 A... Surface D... Ancillary (Haulroad, Conveyor, and/or Rails) H... Exploration Permits L... Remaining site permitted under 30 CFR 785.25  
 B... Underground E... Refuse and/or Impoundment I... Notice of Intent to Explore  
 C... Preparation Plant F... Loading Facility and/or Tippie J... Exempt 16 and 2/3  
 G... Stockpiles K... Government Financed Construction Exemption

**Small Business Regulatory Enforcement Fairness Act (SBREFA)**  
**Your Comments Are Important**

The Small Business and Agriculture Regulatory Enforcement Ombudsman and 10 Regional Fairness Boards were established to receive comments from small businesses about Federal agency enforcement actions. The Ombudsman will annually evaluate the enforcement activities and rate each agency's responsiveness to small business. If you are a small business (a business with 500 or fewer employees including those of affiliates) and wish to comment on the enforcement or compliance activities of OSM, call 1-888-REG-FAIR (1-888-734-3247).

# U. S. DEPT. OF THE INTERIOR OFFICE OF SURFACE MINING

## Mine Site Evaluation

State Program

Permittee/  
Person GENWAL COAL CO., INC.

Permit  
Number UT-015-032

Field Visit  
Date 10/28/2009

Continuation Page

### 28. Performance Standard Categories

Codes: 1=Compliance, 2=Noncompliance, 3=Not Planned, 4=Not Started, 5=Noncompliance Identified Elsewhere, 6=Previously Cited

- |  |  |  |         |     |     |     |     |     |             |     |     |     |     |     |          |     |     |     |     |     |
|--|--|--|---------|-----|-----|-----|-----|-----|-------------|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|
| <p><b>A. Administrative</b></p> <ol style="list-style-type: none"> <li>1. <u>1</u> Mining within Valid Permit</li> <li>2. <u>2</u> Mining within Bonded Area</li> <li>3. <u>2</u> Terms &amp; Conditions of Permit</li> <li>4. <u>1</u> Liability Insurance</li> <li>5. <u>1</u> Ownership and Control</li> <li>6. ___ Temporary Cessation</li> <li>7. ___ AML Rec. Fees -- Non-Respondent</li> <li>8. ___ AML Rec. Fees -- Failure to Pay</li> </ol> <p><b>B. Hydrologic Balance</b></p> <ol style="list-style-type: none"> <li>1. <u>1</u> Drainage Control</li> <li>2. <u>1</u> Inspections &amp; Certifications</li> <li>3. <u>5</u> Siltation Structures</li> <li>4. <u>1</u> Discharge Structures</li> <li>5. <u>1</u> Diversions</li> <li>6. <u>5</u> Effluent Limits</li> <li>7. <u>1</u> Ground Water Monitoring</li> <li>8. <u>1</u> Surface Water Monitoring</li> <li>9. <u>5</u> Drainage -- Acid-Toxic Materials</li> <li>10. <u>1</u> Impoundments</li> <li>11. <u>1</u> Stream Buffer Zones</li> </ol> <p><b>C. Topsoil &amp; Subsoil</b></p> <ol style="list-style-type: none"> <li>1. ___ Removal</li> <li>2. ___ Substitute Materials</li> <li>3. ___ Storage and Protection</li> <li>4. ___ Redistribution</li> </ol> | <p><b>D. Backfilling &amp; Grading</b></p> <ol style="list-style-type: none"> <li>1. ___ Exposed Openings</li> <li>2. ___ Contemporaneous Reclamation</li> <li>3. ___ Approximate Original Contour</li> <li>4. ___ Highwall Elimination</li> <li>5. ___ Steep Slopes (includes downslope)</li> <li>6. ___ Handling of Acid &amp; Toxic Materials</li> <li>7. <u>1</u> Stabilization (rills and gullies)</li> </ol> <p><b>E. Excess Spoil Disposal</b></p> <ol style="list-style-type: none"> <li>1. ___ Placement</li> <li>2. ___ Drainage Control</li> <li>3. ___ Surface Stabilization</li> <li>4. ___ Inspections &amp; Certifications</li> </ol> <p><b>F. Coal Mine Waste (Refuse Piles/Impoundments)</b></p> <ol style="list-style-type: none"> <li>1. ___ Drainage Control</li> <li>2. ___ Surface Stabilization</li> <li>3. ___ Placement</li> <li>4. ___ Inspections and Certifications</li> <li>5. ___ Impounding Structures</li> </ol> <p><b>G. Use Of Explosives</b></p> <ol style="list-style-type: none"> <li>1. ___ Blaster Certification</li> <li>2. ___ Distance Prohibitions</li> <li>3. ___ Blast Survey/Schedule</li> <li>4. ___ Warnings &amp; Records</li> <li>5. ___ Control of Adverse Effects</li> </ol> | <p><b>H. Subsidence Control Plan</b></p> <p><b>I. Roads</b></p> <ol style="list-style-type: none"> <li>1. <u>1</u> Road Construction</li> <li>2. ___ Certification</li> <li>3. <u>1</u> Drainage</li> <li>4. <u>1</u> Surfacing and Maintenance</li> <li>5. ___ Reclamation</li> </ol> <p><b>J. Signs &amp; Markers</b></p> <ol style="list-style-type: none"> <li>1. <u>1</u> Signs</li> <li>2. <u>1</u> Markers</li> </ol> <p><b>K. Distance Prohibitions</b></p> <p><b>L. Revegetation</b></p> <ol style="list-style-type: none"> <li>1. ___ Vegetative Cover</li> <li>2. ___ Timing</li> </ol> <p><b>M. Postmining Land Use</b></p> <p><b>N. Other</b></p> <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 60%;">General</td> <td style="width: 5%;">___</td> </tr> <tr> <td>Performance</td> <td>___</td> <td>___</td> <td>___</td> <td>___</td> <td>___</td> </tr> <tr> <td>Category</td> <td>___</td> <td>___</td> <td>___</td> <td>___</td> <td>___</td> </tr> </table> | General | ___ | ___ | ___ | ___ | ___ | Performance | ___ | ___ | ___ | ___ | ___ | Category | ___ | ___ | ___ | ___ | ___ |
| General  | ___  | ___  | ___     | ___ | ___ |     |     |     |             |     |     |     |     |     |          |     |     |     |     |     |
| Performance  | ___  | ___  | ___     | ___ | ___ |     |     |     |             |     |     |     |     |     |          |     |     |     |     |     |
| Category   | ___  | ___  | ___     | ___ | ___ |     |     |     |             |     |     |     |     |     |          |     |     |     |     |     |

### Performance Standard Categories 30 CFR Counterpart

<p><b>A. Administrative.....(816/817.71-74)</b></p> <ol style="list-style-type: none"> <li>1. Valid Permit.....773.11</li> <li>2. Mining within Bonded Area.....773.11</li> <li>3. Terms &amp; Conditions of Permit.....773.17</li> <li>4. Liability Insurance.....800.60</li> <li>5. Ownership and Control.....778.13</li> <li>6. Temporary Cessation.....842.11(e) &amp; 816/817.131</li> <li>7. AML Rec. Fees -- Non-Respondent.....870.15(b)</li> <li>8. AML Rec. Fees -- Failure to Pay.....870.15(a)</li> </ol> <p><b>B. Hydrologic Balance.....(816/817.41-57)</b></p> <ol style="list-style-type: none"> <li>1. Drainage Control.....45</li> <li>2. Inspections &amp; Certifications.....49(a)(10)</li> <li>3. Siltation Structures.....46</li> <li>4. Discharge Structures.....47</li> <li>5. Diversions.....43</li> <li>6. Effluent Limits.....42</li> <li>7. Ground Water Monitoring.....41(c)</li> <li>8. Surface Water Monitoring.....41(e)</li> <li>9. Drainage--Acid - Toxic Materials.....41(f)</li> <li>10. Impoundments.....49</li> <li>11. Stream Buffer Zones.....57</li> </ol> <p><b>C. Topsoil &amp; Subsoil.....(816/817.22)</b></p> <ol style="list-style-type: none"> <li>1. Removal.....22(a)</li> <li>2. Substitute Materials.....22(c)</li> <li>3. Storage and Protection.....22(c)</li> <li>4. Redistribution.....22(d)</li> </ol> <p><b>D. Backfilling &amp; Grading.....(816/817.95-107)</b></p> <ol style="list-style-type: none"> <li>1. Exposed Openings.....816/817.13, 14, 15, &amp; 823.11 &amp; 21</li> <li>2. Contemporaneous Reclamation.....100</li> <li>3. Approximate Original Contour.....102(a)(1)</li> <li>4. Highwall Elimination.....102(a)(2)</li> <li>5. Steep Slopes (includes downslope).....107</li> <li>6. Handling of Acid &amp; Toxic Materials.....102(c)</li> <li>7. Stabilization (rills and gullies).....95(b)</li> </ol>	<p><b>E. Excess Spoil Disposal.....(816/817.71-74)</b></p> <ol style="list-style-type: none"> <li>1. Placement.....71(e)</li> <li>2. Drainage Control.....71(f)</li> <li>3. Surface Stabilization.....71(g)</li> <li>4. Inspections &amp; Certifications.....71(h)</li> </ol> <p><b>F. Coal Mine Waste (Refuse Piles/Impoundments) .....(816/817.81-84)</b></p> <ol style="list-style-type: none"> <li>1. Drainage Control.....83(a)</li> <li>2. Surface Stabilization.....83(b)</li> <li>3. Placement.....83(c)</li> <li>4. Inspections and Certifications.....83(d)</li> <li>5. Impounding Structures.....84</li> </ol> <p><b>G. Use of Explosives.....(816/817.61-68)</b></p> <ol style="list-style-type: none"> <li>1. Blaster Certification.....61(c)</li> <li>2. Distance Prohibitions.....61(d)</li> <li>3. Blast Survey/Schedule.....62-64</li> <li>4. Warnings &amp; Records.....66 &amp; 68</li> <li>5. Control of Adverse Effects.....67</li> </ol> <p><b>H. Subsidence Control Plan.....(817.121-122)</b></p> <p><b>I. Roads.....(816/817.150-151)</b></p> <ol style="list-style-type: none"> <li>1. Road Construction.....150(c)</li> <li>2. Certification.....151(a)</li> <li>3. Drainage.....150(b)-151(d)</li> <li>4. Surfacing and Maintenance.....150(e)-151(d)</li> <li>5. Reclamation.....150(f)</li> </ol> <p><b>J. Signs &amp; Markers .....(816/817.11)</b></p> <ol style="list-style-type: none"> <li>1. Signs.....11(a),(b),&amp;(c)</li> <li>2. Markers.....11(a),(b),(d),(e),&amp;(f)</li> </ol> <p><b>K. Distance Prohibitions.....(761.11)</b></p> <p><b>L. Revegetation.....(816/817.111-116)</b></p> <ol style="list-style-type: none"> <li>1. Vegetative Cover.....111 &amp; 116</li> <li>2. Timing.....113</li> </ol> <p><b>M. Postmining Land Use.....(816/817.133)</b></p>
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Crandall Canyon Complete Joint Inspection

Utah Permit ID #C-015-0032

October 28, 2009 9:30 - 2:00

Weather conditions: windy, cold (low 30's), cloudy

Participants:

Karl Housekeeper (DOGM)

Steve Christensen (DOGM)

Priscilla Burton (DOGM)

Dave Shaver (UtahAmerica Energy, UAE)

Shane Campbell (Scamp Excavation Inc.)

Christine Belka (OSM Badge ID #182)

RECEIVED

DEC 21 2009

DIV. OF OIL, GAS & MINING

This was a complete inspection of the Crandall Canyon mine.

Field evaluation: Construction of the mine water treatment facility was underway at the time of inspection (see Figures 1 & 2). This reportedly began about a week ago and could be ready within two or three weeks (getting electrical power to the site would determine when the facility could come on-line). Men were working on the concrete wall and compacting the embankment lift. The designs for the treatment facility have not been approved by DOGM and should therefore not be constructed until properly reviewed and approved.

Numerous seeps along the rock ledge above the proposed treatment facility continually produce water. This water was dripping down from the rock face and running along the top of the concrete retaining wall (see Figure 3). Concrete has been poured behind the existing retaining wall to create an elevated channel for this water. Upon completion, this water would be routed into the treatment facility near its discharge point.

The stream channel has not been cleaned and continues to show excessive iron staining. The stream should be cleaned.

The portals have been sealed and fenced off with a locked gate. Water discharging from the portals is collected in pipes (one pipe in each of three portals) which run underground and connect with the existing mine discharge pipe. Additional discharge is collected in secondary rock lined down-drains contained within concrete structures (see Figure 4). All water collected through the portals is to be routed into the treatment facility (currently discharging into Crandall Creek).

Sediment in the existing sediment pond is 6 feet above the required clean-out level (see Figure 5). This pond was last cleaned in April 2006. Dave was notified that he will receive an NOV for the violation either tonight or tomorrow and that he needs to clean out the pond - at least to the level where it could contain a 10-yr, 24-hr storm event.

Records review:

Sediment pond inspection report dated September 9, 2009 indicates that the water level was 6 feet below the spillway elevation, the embankment was stable, and no signs of erosion were evident.

DOGM permit ID #C/015/0032 was renewed on May 13, 2008 for another 5-yr term. The required bond amount at that time was \$2,061,275.

Acord insurance policy #054197905 is in effect for the 6/1/09 - 6/1/10 term.

and contains all necessary coverage including XCU (explosives).

The last bond calculation in the book was dated January 2006. This does not include the bond increase in late 2007 due to the mining disaster on 8/6/07. The bond was increased from \$1,654,000 to \$2,062,000. The bond rider increasing that amount should be kept on record in this book. The bond must also be revised to reflect increased reclamation costs due to the water treatment facility and perpetual treatment of iron in up to 1,000 gpm of mine discharge.

SPCC plan on file was certified by John Christopher Lewis on 9/18/04. These plans are for 5-yr terms, so this must be renewed.

UPDES permit #UT000024368 (5/1/05 through 11/30/10) was amended on 2/22/07 to reduce whole effluent toxicity testing from quarterly to semi-annually. The most current water quality monitoring reports were from July 2009. More current records should be available.

**Additional discussion:** We discussed the water problems and the treatment facility before going outside to see at what was under construction. Dave informed us that water started discharging through the portals about 6 months after the mine collapse. For the first couple of months many water quality parameters were above normal, then most levels fell back down but iron rose. The Division of Water Quality has issued two violations here - one in May 2009 and one about 6 weeks ago (mid-September).

The mine is discharging 600-700 gpm, with a peak discharge level recorded at 1,000 gpm. The treatment facility has reportedly been designed to handle this amount of water. Dave said they did density analysis but did not include it in the revision package. No stability analysis or engineering calculations / factor of safety demonstrations have been provided. Steve informed Dave that the alternative sediment control area (ASCA) designation he proposed doesn't fit the facility. Steve read the definition of "other treatment facilities" which better describes this type of treatment facility. In this case, performance standards for sedimentation ponds will apply. This also means that additional information will be required before the Division is able to do a complete review of the revision application package.

We briefly discussed the bond revision which is necessary at the site. Dave believes the revision will be nominal and he should have adequate coverage in the existing bond. Currently, UAE only has about \$1,000 in excess bond above the calculated liability amount. He stated his plans to apply for Phase I bond release for the emergency drill pad area which should free up about \$100,000 worth of bond. This bond release application has not been prepared. I mentioned the Division's need to calculate required bond amounts based on the worst-case scenario. In this case, the worst case scenario is that the mine discharges iron-rich water forever and UAE goes out of business tomorrow. The Division would be responsible to treat the water in perpetuity and reclaim all remaining surface facilities and disturbances. The Division must recalculate the reclamation liability amount for this site in light of the fact that this mine could perpetually discharge iron-rich water. The bond must be revised as soon as possible.

We also discussed the basics of the facility design. It is being constructed out of borrow material (sand through small rock sized unconsolidated material) from Shane's gravel pit which is being added in 8 inch-lifts and compacted to 90%. A felt liner will be installed below the pond liner to

protect against punctures. Jersey barriers will also be used to secure the perimeter. Drainage from the surrounding areas will be routed away, so only mine discharge, water from seeps in the rock ledge above the pond, and direct precipitation will contribute to the treatment facility. The rock ledge was cleaned with a high-pressure hose to ensure that water contributed from the seeps remains as clean as possible. The treatment facility will discharge through a pipe system at the approved UPDES monitoring point.

Photographs taken:



Figure 1: Workers constructing water treatment facility

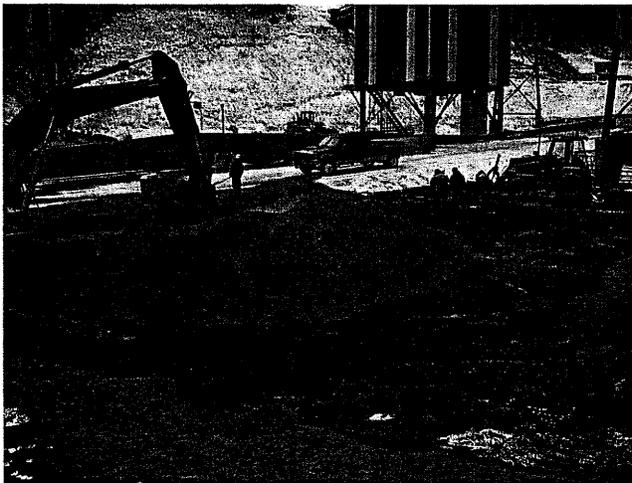


Figure 2: Workers constructing water treatment facility

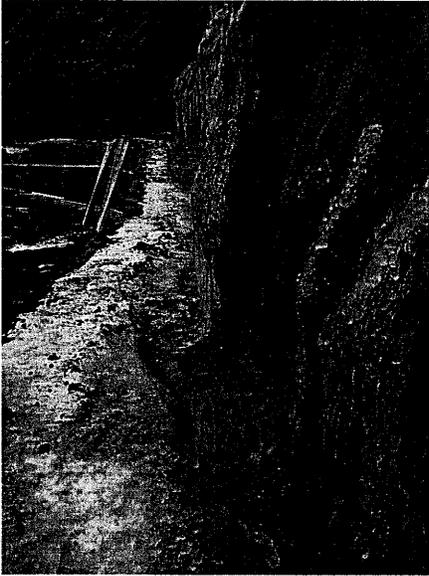


Figure 3: Water collecting in concrete pond wall diversion

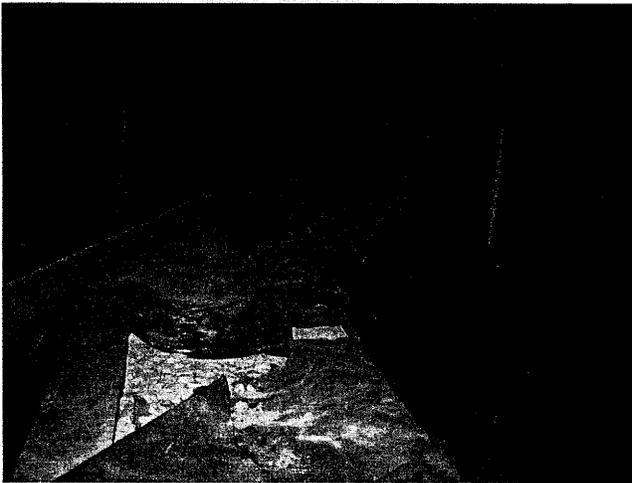


Figure 4: Portal discharge structures

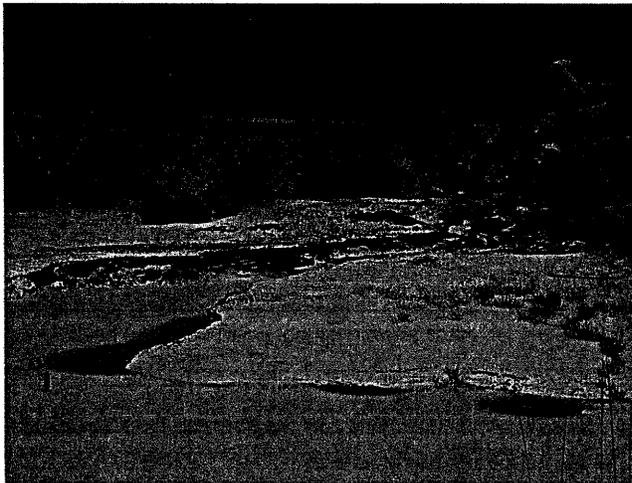


Figure 5: Sediment pond above clean-out level