



Alabama Department of Environmental Management
adem.alabama.gov

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MAY - 3 2016

L. K. Larson
Co-Owner
c/o Larson & McGowin, Inc.
PO Box 2143
Mobile, AL 36652

RE: Draft Permit
Hatters Tenant in Common Dirt Pit
NPDES Permit No. AL0068250
Mobile County (097)

Dear Mr. Larson:

Transmitted herein is a draft of the above referenced permit. Please review the enclosed draft permit carefully. Please submit any comments on the draft permit to the Department within 30 days from the date of receipt of this letter.

Since the Department has made a tentative decision to issue the above referenced permit, ADEM Admin. Code r. 335-6-6-.21 requires a public notice of the draft permit in a local newspaper followed by a period of at least 30 days for public comment before the permit can be issued.

The United States Environmental Protection Agency will also receive the draft permit for review during the 30-day public comment period.

Any mining, processing, construction, land disturbance, or other regulated activity proposed to be authorized by this draft permit is prohibited prior to the effective date of the formal permit. Any mining or processing activity within the drainage basin associated with each permitted outfall which is conducted prior to Departmental receipt of certification from a professional engineer licensed to practice in the State of Alabama, that the Pollution Abatement/Prevention Plan was implemented according to the design plan, or notification from the Alabama Surface Mining Commission that the sediment control structures have been certified, is prohibited.



Please be aware that, if you are not already participating in the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs), your permit will require you to apply for participation in the E2 DMR system unless valid justification as to why you cannot participate is submitted in writing. The E2 DMR system allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. The Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes> or you may obtain a hard copy by submitting a written request or by emailing e2admin@adem.alabama.gov.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

Should you have any questions concerning this matter, please contact Amber H. Powell by email at amber.powell@adem.state.al.us or by phone at (334) 271-7975.

Sincerely,



Catherine A. McNeill, Chief
Mining and Natural Resource Section
Stormwater Management Branch
Water Division

CAM/ggg File: DPER/ 5725

Enclosure

cc: Amber H. Powell, ADEM
Environmental Protection Agency Region IV
Alabama Department of Conservation and Natural Resources
U.S. Fish and Wildlife Service
Alabama Historical Commission
Advisory Council on Historic Preservation
Alabama Department of Labor



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM INDIVIDUAL PERMIT

PERMITTEE: L. K. Larson
c/o Larson & McGowin, Inc.
Post Office Box 2143
Mobile, AL 36652

FACILITY LOCATION: Hatter Tenants in Common Dirt Pit
North of Radcliff Road
Mobile, AL 36652
Mobile County
T2S, R1W, S4

PERMIT NUMBER: AL0068250

DSN & RECEIVING STREAM: 002-1 Sawmill Creek/Groundwater

In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1378 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-16, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

DRAFT

Alabama Department of Environmental Management

MINING AND NATURAL RESOURCE SECTION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

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PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS

A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this Permit and lasting through the expiration date of this Permit, the Permittee is authorized to discharge from outfalls identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfalls have been constructed and certified. Discharges shall be limited and monitored by the Permittee as specified below:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency ¹
pH 00400	6.0 s.u.	-----	9.0 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-----	35.0 mg/L	70.0 mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant ² 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month

B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL

1. Discharge from any point source identified on Page 1 of this Permit which is a proposed outfall is not authorized by this Permit until the outfall has been constructed and certification received by the Department from a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed according to good engineering practices and in accordance with the Pollution Abatement and/or Prevention (PAP) Plan.
2. Certification required by Part I.B.1. shall be submitted on a completed ADEM Form 432. The certification shall include the latitude and longitude of the constructed and certified outfall.
3. Discharge monitoring and Discharge Monitoring Report (DMR) reporting requirements described in Part I.C. of this Permit do not apply to point sources that have not been constructed and certified.
4. Upon submittal of the certification required by Part I.B.1. to the Department, all monitoring and DMR submittal requirements shall apply to the constructed and certified outfall.

C. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS

1. Sampling Schedule and Frequency

- a. The Permittee shall collect at least one grab sample of the discharge to surface waters from each constructed and certified point source identified on Page 1 of this Permit and described more fully in the Permittee's application twice per month at a rate of at least every other week if a discharge occurs at any time during the two week period, but need

¹ See Part I.C.2. for further measurement frequency requirements.

² Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.

not collect more than two samples per calendar month. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.

- b. If the final effluent is pumped in order to discharge (e.g. from incised ponds, old highwall cuts, old pit areas or depressions, etc.), the Permittee shall collect at least one grab sample of the discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application each quarterly (three month) monitoring period if a discharge occurs at any time during the quarterly monitoring period which results from direct pumped drainage. Each sample collected shall be analyzed for each parameter specified in Part I.A. of this Permit.
- c. The Permittee may increase the frequency of sampling listed in Parts I.C.1.a and I.C.1.b; however, all sampling results must be reported to the Department and included in any calculated results submitted to the Department in accordance with this Permit.

2. Measurement Frequency

Measurement frequency requirements found in Part I.A. shall mean:

- a. A measurement frequency of one day per week shall mean sample collection on any day of discharge which occurs every calendar week.
- b. A measurement frequency of two days per month shall mean sample collection on any day of discharge which occurs every other week, but need not exceed two sample days per month.
- c. A measurement frequency of one day per month shall mean sample collection on any day of discharge which occurs during each calendar month.
- d. A measurement frequency of one day per quarter shall mean sample collection on any day of discharge which occurs during each calendar quarter.
- e. A measurement frequency of one day per six months shall mean sample collection on any day of discharge which occurs during the period of January through June and during the period of July through December.
- f. A measurement frequency of one day per year shall mean sample collection on any day of discharge which occurs during each calendar year.

3. Monitoring Schedule

The Permittee shall conduct the monitoring required by Part I.A. in accordance with the following schedule:

- a. MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY shall be conducted during the first full month following the effective date of coverage under this Permit and every month thereafter. More frequently than monthly and monthly monitoring may be done anytime during the month, unless restricted elsewhere in this Permit, but the results should be reported on the last Discharge Monitoring Report (DMR) due for the quarter (i.e., with the March, June, September, and December DMRs).
- b. QUARTERLY MONITORING shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The Permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective

date of this Permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this Permit, but the results should be reported on the last DMR due for the quarter (i.e., with the March, June, September, and December DMRs).

- c. SEMIANNUAL MONITORING shall be conducted at least once during the period of January through June and at least once during the period of July through December. The Permittee shall conduct the semiannual monitoring during the first complete semiannual calendar period following the effective date of this Permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this Permit, but it should be reported on the last DMR due for the month of the semiannual period (i.e., with the June and December DMRs).
- d. ANNUAL MONITORING shall be conducted at least once during the period of January through December. The Permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this Permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this Permit, but it should be reported on the December DMR.

4. Sampling Location

Unless restricted elsewhere in this Permit, samples collected to comply with the monitoring requirements specified in Part I.A. shall be collected at the nearest accessible location just prior to discharge and after final treatment, or at an alternate location approved in writing by the Department.

5. Representative Sampling

Sample collection and measurement actions taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this Permit.

6. Test Procedures

For the purpose of reporting and compliance, Permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136, guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h), and ADEM Standard Operating Procedures. If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance, however should EPA approve a method with a lower minimum level during the term of this Permit the Permittee shall use the newly approved method.
- b. For pollutant parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based

upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the Permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

- c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures identified in Parts I.C.6.a. and b. shall be reported on the Permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

7. Recording of Results

For each measurement or sample taken pursuant to the requirements of this Permit, the Permittee shall record the following information:

- a. The facility name and location, point source number, date, time, and exact place of sampling or measurements;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used including source of method and method number; and
- f. The results of all required analyses.

8. Routine Inspection by Permittee

- a. The Permittee shall inspect all point sources identified on Page 1 of this Permit and described more fully in the Permittee's application and all treatment or control facilities or systems used by the Permittee to achieve compliance with the terms and conditions of this Permit at least as often as the applicable sampling frequency specified in Part I.C.1 of this Permit.
- b. If required by the Director, the Permittee shall maintain a written log for each point source identified on Page 1 of this Permit and described more fully in the Permittee's application in which the Permittee shall record the following information:
 - (1) The date and time the point source and any associated treatment or control facilities or systems were inspected by the Permittee;
 - (2) Whether there was a discharge from the point source at the time of inspection by the Permittee;
 - (3) Whether a sample of the discharge from the point source was collected at the time of inspection by the Permittee;

- (4) Whether all associated treatment or control facilities or systems appeared to be in good working order and operating as efficiently as possible, and if not, a description of the problems or deficiencies; and
- (5) The name and signature of the person performing the inspection of the point source and associated treatment or control facilities or systems.

9. Records Retention and Production

- a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the above reports or the application for this Permit, for a period of at least three (3) years from the date of the sample collection, measurement, report, or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA, AEMA, and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director, the Permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records should not be submitted unless requested.
- b. All records required to be kept for a period of three (3) years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

10. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this Permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The Permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

D. DISCHARGE REPORTING REQUIREMENTS

1. Requirements for Reporting of Monitoring

- a. Monitoring results obtained during the previous three (3) months shall be summarized for each month on a Discharge Monitoring Report (DMR) Form approved by the Department, and submitted to the Department so that it is received by the Director no later than the 28th day of the month following the quarterly reporting period (i.e., on the 28th day of January, April, July, and October of each year).
- b. The Department is utilizing a web-based electronic environmental (E2) reporting system for submittal of DMRs. The E2 DMR system allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. If the Permittee is not already participating in the E2 DMR system, the Permittee must apply for participation in the E2 DMR system within 180 days of the effective date of this permit unless valid justification as to why they cannot participate is submitted in writing. After 180 days, hard copy DMRs may be used only with written approval from the Department. To participate

in the E2 DMR system, the Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes>. If the electronic environmental (E2) reporting system is down (i.e. electronic submittal of DMR data is unable to be completed due to technical problems originating with the Department's system; this could include entry/submittal issues with an entire set of DMRs or individual parameters), permittees are not relieved of their obligation to submit DMR data to the Department by the required submittal date. However, if the E2 system is down on the 28th day of the month or is down for an extended period of time as determined by the Department when a DMR is required to be submitted, the facility may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within five calendar days of the E2 system resuming operation, the Permittee shall enter the data into the E2 reporting system unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of dated e-mail, or hand-delivery stamped date). If a permittee is allowed to submit via the US Postal Service, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this Permit. If the Permittee, using approved analytical methods as specified in Part I.C.6. monitors any discharge from a point source identified on Page 1 of this Permit and describe more fully in the Permittee's application more frequently than required by this Permit; the results of such monitoring shall be included in the calculation and reporting of values on the DMR Form, and the increased frequency shall be indicated on the DMR Form. In the event no discharge from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application occurs during a monitoring period, the Permittee shall report "No Discharge" for such period on the appropriate DMR Form.

- c. The Permittee shall report "No Discharge During Quarterly Monitoring Period" on the appropriate DMR Form for each point source receiving pumped discharges pursuant to Part I.C.1.b. provided that no discharge has occurred at any time during the entire quarterly (three month) monitoring period.
- d. Each DMR Form submitted by the Permittee to the Department in accordance with Part I.D.1.a and b. must be legible and bear an original signature or electronic signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this Permit.
- e. All reports and forms required to be submitted by this Permit, the AWPCA, and the Department's rules and regulations, shall be signed by a "responsible official" of the Permittee as defined in ADEM Admin. Code r. 335-6-6-.09 or a "duly authorized representative" of such official as defined in ADEM Admin. Code r. 335-6-6-.09 and shall bear the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
- f. All DMRs, reports, and forms required to be submitted by this Permit, the AWPCA and the Department's rules and regulations, shall be addressed to:

Alabama Department of Environmental Management
Water Division, Mining and Natural Resource Section
Post Office Box 301463
Montgomery, Alabama 36130-1463

Certified and Registered Mail shall be addressed to:

Alabama Department of Environmental Management
Water Division, Mining and Natural Resource Section
1400 Coliseum Boulevard
Montgomery, Alabama 36110-2059

- g. Unless authorized in writing by the Department, approved reporting forms required by this Permit or the Department are not to be altered, and if copied or reproduced, must be consistent in format and identical in content to the ADEM approved form. Unauthorized alteration, falsification, or use of incorrectly reproduced forms constitutes noncompliance with the requirements of this Permit and may significantly delay processing of any request, result in denial of the request, result in permit termination, revocation, suspension, modification, or denial of a permit renewal application, or result in other enforcement action.
- h. If this Permit is a reissuance, then the Permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.D.1.a and b.

2. Noncompliance Notification

- a. The Permittee must notify the Department if, for any reason, the Permittee's discharge:
 - (1) Potentially threatens human health or welfare;
 - (2) Potentially threatens fish or aquatic life;
 - (3) Causes an in-stream water quality criterion to be exceeded;
 - (4) Does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. §1317(a);
 - (5) Contains a quantity of a hazardous substance which has been determined may be harmful to the public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. §1321(b)(4); or
 - (6) Exceeds any discharge limitation for an effluent parameter as a result of an unanticipated bypass or upset.

The Permittee shall orally or electronically report any of the above occurrences, describing the circumstances and potential effects of such discharge to the Director within 24-hours after the Permittee becomes aware of the occurrence of such discharge. In addition to the oral or electronic report, the Permittee shall submit to the Director a written report as provided in Part I.D.2.c., no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the Permittee's discharge does not comply with any limitation of this Permit, the Permittee shall submit a written report to the Director as provided in Part I.D.2.c. This report must be submitted with the next Discharge Monitoring Report required to be submitted by Part I.D.1. of this Permit after becoming aware of the occurrence of such noncompliance.
- c. Form 401 or 421 must be submitted to the Director in accordance with Parts I.D.2.a. and b. The completed form must document the following information:
 - (1) A description of the discharge and cause of noncompliance;
 - (2) The period of noncompliance, including exact dates, times, and duration of the noncompliance. If not corrected by the due date of the written report, then the Permittee is to state the anticipated timeframe that is expected to transpire before the noncompliance is resolved; and
 - (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

3. Reduction, Suspension, or Termination of Monitoring and/or Reporting

- a. The Director may, with respect to any point source identified on Page 1 of this Permit and described more fully in the Permittee's application, authorize the Permittee to reduce, suspend, or terminate the monitoring and/or reporting required by this Permit upon the submission of a written request for such reduction, suspension, or termination by the Permittee provided:
 - (1) All mining, processing, or disturbance in the drainage basin(s) associated with the discharge has ceased and site access is adequately restricted or controlled to preclude unpermitted and unauthorized mining, processing, transportation, or associated operations/activity;
 - (2) Permanent, perennial vegetation has been re-established on all areas mined or disturbed for at least one year since mining has ceased in the drainage basin(s) associated with the surface discharge, or all areas have been permanently graded such that all drainage is directed back into the mined pit to preclude all surface discharges;
 - (3) Unless waived in writing by the Department, the Permittee has been granted, in writing, a 100% Bond Release, if applicable, by the Alabama Department of Industrial Relations and, if applicable, by the Surface Mining Commission for all areas mined or disturbed in the drainage basin(s) associated with the discharge;
 - (4) Unless waived in writing by the Department, the Permittee has submitted inspection reports prepared and certified by a Professional Engineer (PE) registered in the State of Alabama or a qualified professional under the PE's direction which certify that the facility has been fully reclaimed or that water quality remediation has been achieved. The first inspection must be conducted approximately one year prior to and the second inspection must be conducted within thirty days of the Permittee's request for termination of monitoring and reporting requirements;
 - (5) All surface effects of the mining activity such as fuel or chemical tanks, preparation plants or equipment, old tools or equipment, junk or debris, etc.,

must be removed and disposed of according to applicable state and federal regulations;

- (6) The Permittee's request for termination of monitoring and reporting requirements contained in this Permit has been supported by monitoring data covering a period of at least six consecutive months or such longer period as is necessary to assure that the data reflect discharges occurring during varying seasonal climatological conditions;
- (7) The Permittee has stated in its request that the samples collected and reported in the monitoring data submitted in support of the Permittee's request for monitoring termination or suspension are representative of the discharge and were collected in accordance with all Permit terms and conditions respecting sampling times (e.g., rainfall events) and methods and were analyzed in accordance with all Permit terms and conditions respecting analytical methods and procedures;
- (8) The Permittee has certified that during the entire period covered by the monitoring data submitted, no chemical treatment of the discharge was provided;
- (9) The Permittee's request has included the certification required by Part I.D.1.e. of this Permit; and
- (10) The Permittee has certified to the Director in writing as part of the request, its compliance with (1) through (9) above.

- b. It remains the responsibility of the Permittee to comply with the monitoring and reporting requirements of this Permit until written authorization to reduce, suspend, or terminate such monitoring and/or reporting is received by the Permittee from the Director.

E. OTHER REPORTING AND NOTIFICATION REQUIREMENTS

1. Anticipated Noncompliance

The Permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The Permittee shall notify the Director, in writing, when all discharges from any point source(s) identified on Page 1 of this Permit and described more fully in the Permittee's application have permanently ceased.

3. Updating Information

- a. The Permittee shall inform the Director of any change in the Permittee's mailing address or telephone number or in the Permittee's designation of a facility contact or officer(s) having the authority and responsibility to prevent and abate violations of the AWPCA, the AEMA, the Department's rules and regulations, and the terms and conditions of this Permit, in writing, no later than ten (10) days after such change. Upon request of the Director, the Permittee shall furnish the Director with an update of any information provided in the permit application.

- b. If the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

- a. The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, suspending, terminating, or revoking and reissuing this Permit, in whole or in part, or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be maintained by this Permit.
- b. The Permittee shall furnish to the Director upon request, within a reasonable time, available information (name, phone number, address, and site location) which identifies offsite sources of material or natural resources (mineral, ore, or other material such as iron, coal, coke, dirt, chert, shale, clay, sand, gravel, bauxite, rock, stone, etc.) used in its operation or stored at the facility.

F. SCHEDULE OF COMPLIANCE

The Permittee shall achieve compliance with the discharge limitations specified in Part I.A. of this Permit in accordance with the following schedule:

Compliance must be achieved by the effective date of this Permit.

PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

1. Facilities Operation and Management

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of this Permit.

2. Pollution Abatement and/or Prevention Plan

The Pollution Abatement and/or Prevention (PAP) Plan shall be prepared and certified by a registered Professional Engineer (PE), licensed to practice in the State of Alabama, and shall include at a minimum, the information indicated in ADEM Admin. Code r. 335-6-9-.03 and ADEM Admin. Code ch. 335-6-9 Appendices A and B. The PAP Plan shall become a part of this Permit and all requirements of the PAP Plan shall become requirements of this Permit pursuant to ADEM Admin. Code r. 335-6-9-.05(2).

3. Best Management Practices (BMPs)

a. Unless otherwise authorized in writing by the Director, the Permittee shall provide a means of subsurface withdrawal for any discharge from each point source identified on Page 1 of this Permit and described more fully in the Permittee's application. Notwithstanding the above provision, a means of subsurface withdrawal need not be provided for any discharge caused by a 24-hour precipitation event greater than a 10-year, 24-hour precipitation event.

b. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director has granted prior written authorization for dilution to meet water quality requirements.

c. The Permittee shall minimize the contact of water with overburden, including but not limited to stabilizing disturbed areas through grading, diverting runoff, achieving quick growing stands of temporary vegetation, sealing acid-forming and toxic-forming materials, and maximizing placement of waste materials in back-fill areas.

d. The Permittee shall prepare, submit to the Department for approval, and implement a Best Management Practices (BMPs) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a potential for discharge, if so required by the Director. When submitted and approved, the BMP Plan shall become a part of this Permit and all requirements of the BMP Plan shall become requirements of this Permit.

e. Spill Prevention, Control, and Management

The Permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan acceptable to the Department that is prepared and certified by a Professional Engineer (PE), registered in the State of Alabama, for all onsite petroleum product or other pollutant storage tanks or containers as required by applicable state (ADEM Admin. Code r. 335-6-6-.12(r)) and federal (40 C.F.R. §§112.1-7)

regulations. The Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a ground or surface water of the State or a publicly or privately owned treatment works. Careful consideration should be applied for tanks or containers located near treatment ponds, water bodies, or high traffic areas. In most situations this would require construction of a containment system if the cumulative storage capacity of petroleum products or other pollutants at the facility is greater than 1320 gallons. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. Such containment systems shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided. The applicant shall maintain onsite or have readily available flotation booms to contain, and sufficient material to absorb, fuel and chemical spills and leaks. Soil contaminated by chemical spills, oil spills, etc., must be immediately cleaned up or be removed and disposed of in an approved manner.

- f. All surface drainage and storm water runoff which originate within or enters the Permittee's premises and which contains any pollutants or other wastes shall be discharged, if at all, from a point source identified on Page 1 of this Permit and described more fully in the Permittee's application.
- g. The Permittee shall take all reasonable precautions to prevent any surface drainage or storm water runoff which originates outside the Permittee's premises and which contains any pollutants or other wastes from entering the Permittee's premises. At no time shall the Permittee discharge any such surface drainage or storm water runoff which enters the Permittee's premises if, either alone or in combination with the Permittee's effluent, the discharge would exceed any applicable discharge limitation specified in Part I.A. of this Permit.

4. Biocide Additives

- a. The Permittee shall notify the Director in writing not later than sixty (60) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in any cooling or boiler system(s) regulated by this Permit. Notification is not required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the Permittee. Such notification shall include:
 - (a) Name and general composition of biocide or chemical;
 - (b) 96-hour median tolerance limit data for organisms representative of the biota of the water(s) which the discharge(s) enter(s);
 - (c) Quantities to be used;
 - (d) Frequencies of use;
 - (e) Proposed discharge concentrations; and
 - (f) EPA registration number, if applicable.
- b. The use of any biocide or chemical additive containing tributyl tin, tributyl tin oxide, zinc, chromium, or related compounds in any cooling or boiler system(s) regulated by the Permit is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates

during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this Permit or in the application for this Permit or not exempted from notification under this Permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

5. Facility Identification

The Permittee shall clearly display prior to commencement of any regulated activity and until permit coverage is properly terminated, the name of the Permittee, entire NPDES permit number, facility or site name, and other descriptive information deemed appropriate by the Permittee at an easily accessible location(s) to adequately identify the site, unless approved otherwise in writing by the Department. The Permittee shall repair or replace the sign(s) as necessary upon becoming aware that the identification is missing or is unreadable due to age, vandalism, theft, weather, or other reason.

6. Removed Substances

Solids, sludges, filter backwash, or any other pollutants or other wastes removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department rules and regulations.

7. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facility, including but not limited to the loss or failure of the primary source of power of the treatment facility, the Permittee shall, where necessary to maintain compliance with the discharge limitations specified in Part I.A. of this Permit or any other terms or conditions of this Permit, cease, reduce, or otherwise control production and/or discharges until treatment is restored.

8. Duty to Mitigate

The Permittee shall promptly take all reasonable steps to minimize or prevent any violation of this Permit or to mitigate and minimize any adverse impact to waters resulting from noncompliance with any discharge limitation specified in Part I.A. of this Permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as is necessary to determine the nature and impact of the noncomplying discharge.

B. BYPASS AND UPSET

1. Bypass

- a. Any bypass is prohibited except as provided in Parts II.B.1.b. and c..
- b. A bypass is not prohibited if:
 - (1) It does not cause any applicable discharge limitation specified in Part I.A. of this Permit to be exceeded;
 - (2) The discharge resulting from such bypass enters the same receiving water as the discharge from the permitted outfall;

- (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system; and
 - (4) The Permittee monitors the discharge resulting from such bypass at a frequency, at least daily, sufficient to prove compliance with the discharge limitations specified in Part I.A. of this Permit.
- c. A bypass is not prohibited and need not meet the discharge limitations specified in Part I.A. of this Permit if:
- (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if the Permittee could have installed adequate backup equipment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The Permittee submits a written request for authorization to bypass to the Director at least ten (10) days, if possible, prior to the anticipated bypass or within 24 hours of an unanticipated bypass, the Permittee is granted such authorization, and Permittee complies with any conditions imposed by the Director to minimize any adverse impact to waters resulting from the bypass.
- d. The Permittee has the burden of establishing that each of the conditions of Parts II.B.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in Part II.B.1.a. and an exemption, where applicable, from the discharge limitations specified in Part I.A. of this Permit.

2. Upset

- a. Except as provided in Parts II.B.2.b. and c., a discharge which results from an upset need not meet the applicable discharge limitations specified in Part I.A. of this Permit if:
- (1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director; and
 - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, design drawings, construction certification, maintenance records, weir flow measurements, dated photographs, rain gauge measurements, or other relevant evidence, demonstrating that:
 - (i) An upset occurred;
 - (ii) The Permittee can identify the specific cause(s) of the upset;
 - (iii) The Permittee's treatment facility was being properly operated at the time of the upset; and
 - (iv) The Permittee promptly took all reasonable steps to minimize any adverse impact to waters resulting from the upset.

- b. Notwithstanding the provisions of Part II.B.2.a., a discharge which is an overflow from a treatment facility or system, or an excess discharge from a point source associated with a treatment facility or system and which results from a 24-hour precipitation event larger than a 10-year, 24-hour precipitation event is not exempted from the discharge limitations specified in Part I.A. of this Permit unless:
- (1) The treatment facility or system is designed, constructed, and maintained to contain the maximum volume of wastewater which would be generated by the facility during a 24-hour period without an increase in volume from precipitation and the maximum volume of wastewater resulting from a 10-year, 24-hour precipitation event or to treat the maximum flow associated with these volumes.

In computing the maximum volume of wastewater which would result from a 10-year, 24-hour precipitation event, the volume which would result from all areas contributing runoff to the individual treatment facility must be included (i.e., all runoff that is not diverted from the mining area and runoff which is not diverted from the preparation plant area); and
 - (2) The Permittee takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow or excess discharge.
- c. The Permittee has the burden of establishing that each of the conditions of Parts II.B.2.a. and b. have been met to qualify for an exemption from the discharge limitations specified in Part I.A. of this Permit.

C. PERMIT CONDITIONS AND RESTRICTIONS

1. Prohibition against Discharge from Facilities Not Certified

- a. Notwithstanding any other provisions of this Permit, if the permitted facility has not obtained or is not required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which was not certified to the Department on a form approved by the Department by a professional engineer, registered in the State of Alabama, as being designed, constructed, and in accordance with plans and specifications reviewed by the Department is prohibited; or
- b. Notwithstanding any other provisions of this Permit, if the permitted facility has obtained or is required to obtain a permit from the Alabama Surface Mining Commission, any discharge(s) from any point or nonpoint source(s) from the permitted facility which is associated with a treatment facility which was not constructed and certified to the Alabama Surface Mining Commission pursuant to applicable provisions of said Commission's regulations, is prohibited until the Permittee submits to the Alabama Surface Mining Commission, certification by a professional engineer, registered in the State of Alabama, certifying that such facility has been constructed in accordance with plans and specifications approved by the Alabama Surface Mining Commission. This requirement shall not apply to pumped discharges from the underground works of underground coal mines where no surface structure is required by the Alabama Surface Mining Commission, provided the Department is notified in writing of the completion or installation of such facilities, and the pumped discharges will meet permit effluent limits without treatment.

2. Permit Modification, Suspension, Termination, and Revocation

- a. This Permit may be modified, suspended, terminated, or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:
- (1) The violation of any term or condition of this Permit;
 - (2) The obtaining of this Permit by misrepresentation or the failure to disclose fully all relevant facts;
 - (3) The submission of materially false or inaccurate statements or information in the permit application or reports required by the Permit;
 - (4) The need for a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
 - (5) The existence of any typographical or clerical errors or of any errors in the calculation of discharge limitations;
 - (6) The existence of material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
 - (7) The threat of the Permittee's discharge on human health or welfare; or
 - (8) Any other cause allowed by ADEM Admin. Code ch. 335-6-6.
- b. The filing of a request by the Permittee for modification, suspension, termination, or revocation and reissuance of this Permit, in whole or in part, does not stay any Permit term or condition of this Permit.

3. Automatic Expiration of Permits for New or Increased Discharges

- a. Except as provided by ADEM Admin. Code r. 335-6-6-.02(g) and 335-6-6-.05, if this Permit was issued for a new discharger or new source, it shall expire eighteen months after the issuance date if construction has not begun during that eighteen month period.
- b. Except as provided by ADEM Admin. Code r. 335-6-6-.02(g) and 335-6-6-.05, if any portion of this Permit was issued or modified to authorize the discharge of increased quantities of pollutants to accommodate the modification of an existing facility, that portion of this Permit shall expire eighteen months after this Permit's issuance if construction of the modification has not begun within eighteen month period.
- c. Construction has begun when the owner or operator has:
- (1) Begun, or caused to begin as part of a continuous on-site construction program:
 - (i) Any placement, assembly, or installation of facilities or equipment; or
 - (ii) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

(2) Entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

d. The automatic expiration of this Permit for new or increased discharges if construction has not begun within the eighteen month period after the issuance of this Permit may be tolled by administrative or judicial stay.

4. Transfer of Permit

This Permit may not be transferred or the name of the Permittee changed without notice to the Director and subsequent modification or revocation and reissuance of this Permit to identify the new Permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership, or control of the Permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership, or control of the Permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership, or control, he may decide not to modify the existing Permit and require the submission of a new permit application.

5. Groundwater

Unless authorized on page 1 of this Permit, this Permit does not authorize any discharge to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem, and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

6. Property and Other Rights

This Permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the State or of the United States.

D. RESPONSIBILITIES

1. Duty to Comply

- a. The Permittee must comply with all terms and conditions of this Permit. Any permit noncompliance constitutes a violation of the AWPCA, AEMA, and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification, or denial of a permit renewal application.
- b. The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the FWPCA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the effluent standard, prohibition or requirement.

- c. For any violation(s) of this Permit, the Permittee is subject to a civil penalty as authorized by the AWPCA, the AEMA, the FWPCA, and Code of Alabama 1975, §§22-22A-1 et. seq., as amended, and/or a criminal penalty as authorized by Code of Alabama 1975, §22-22-1 et. seq., as amended.
- d. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of this Permit shall not be a defense for a Permittee in an enforcement action.
- e. Nothing in this Permit shall be construed to preclude or negate the Permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, federal, state, or local government permits, certifications, licenses, or other approvals.
- f. The discharge of a pollutant from a source not specifically identified in the permit application for this Permit and not specifically included in the description of an outfall in this Permit is not authorized and shall constitute noncompliance with this Permit.
- g. The Permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this Permit or to minimize or prevent any adverse impact of any permit violation.

2. Change in Discharge

- a. The Permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants, increase the quantity of a discharged pollutant, or that could result in an additional discharge point. This requirement also applies to pollutants that are not subject to discharge limitations in this Permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.
- b. The Permittee shall notify the Director as soon as it knows or has reason to believe that it has begun or expects to begin to discharge any pollutant listed as a toxic pollutant pursuant to Section 307(a) of the FWPCA, 33 U.S.C. §1317(a), any substance designated as a hazardous substance pursuant to Section 311(b)(2) of the FWPCA, 33 U.S.C. §1321(b)(2), any waste listed as a hazardous waste pursuant to Code of Alabama 1975, §22-30-10, or any other pollutants or other wastes which is not subject to any discharge limitations specified in Part I.A. of this Permit and was not reported in the Permittee's application, was reported in the Permittee's application in concentrations or mass rates lower than that which the Permittee expects to begin to be discharged, or has reason to believe has begun to be discharged.

3. Compliance with Toxic or Other Pollutant Effluent Standard or Prohibition

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Sections 301(b)(2)(C),(D),(E) and (F) of the FWPCA, 33 U.S.C. §1311(b)(2)(C),(D),(E), and (F); 304(b)(2) of the FWPCA, 33 U.S.C. §1314(b)(2); or 307(a) of the FWPCA, 33 U.S.C. §1317(a), for a toxic or other pollutant discharged by the Permittee, and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Part I.A. of this Permit or controls a pollutant not limited in Part I.A. of this Permit, this Permit shall be modified to conform to the toxic or other pollutant effluent standard or prohibition and the Permittee shall be notified of such modification. If this Permit has not been modified to conform to the toxic or other pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the authorization to discharge in this Permit shall be void to the extent that any discharge limitation on such pollutant in Part I.A.

of this Permit exceeds or is inconsistent with the established toxic or other pollutant effluent standard or prohibition.

4. Compliance with Water Quality Standards and Other Provisions

- a. On the basis of the Permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this Permit will assure compliance with applicable water quality standards. However, this Permit does not relieve the Permittee from compliance with applicable State water quality standards established in ADEM Admin. Code ch. 335-6-10, and does not preclude the Department from taking action as appropriate to address the potential for contravention of applicable State water quality standards which could result from discharges of pollutants from the permitted facility.
- b. Compliance with Permit terms and conditions notwithstanding, if the Permittee's discharge(s) from point source(s) identified on Page 1 of this Permit cause(s) or contribute(s) to a condition in contravention of State water quality standards, the Department may require abatement action to be taken by the Permittee, modify the Permit pursuant to the Department's rules and regulations, or both.
- c. If the Department determines, on the basis of a notice provided pursuant to Part II.C.2. of this Permit or any investigation, inspection, or sampling, that a modification of this Permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the noticed act until the Permit has been modified.

5. Compliance with Statutes and Rules

- a. This Permit has been issued under ADEM Admin. Code div. 335-6. All provisions of this division, that are applicable to this Permit, are hereby made a part of this Permit. A copy of this division may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36110-2059.
- b. This Permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

6. Right of Entry and Inspection

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

7. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the Permittee intends to continue to discharge beyond the expiration date of this Permit, the Permittee shall file with the Department a complete permit application for reissuance of this Permit at least 180 days prior to its expiration.
- b. If the Permittee does not desire to continue the discharge(s) allowed by this Permit, the Permittee shall notify the Department at least 180 days prior to expiration of this Permit of the Permittee's intention not to request reissuance of this Permit. This notification must include the information required in Part I.D.4.a. and be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Admin. Code r. 335-6-6-.09.
- c. Failure of the Permittee to submit to the Department a complete application for reissuance of this Permit at least 180 days prior to the expiration date of this Permit will void the automatic continuation of this Permit provided by ADEM Admin. Code r. 335-6-6-.06; and should this Permit not be reissued for any reason, any discharge after the expiration of this Permit will be an unpermitted discharge.

PART III ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS

A. CIVIL AND CRIMINAL LIABILITY

1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under this Permit shall, upon conviction, be subject to penalties and/or imprisonment as provided by the AWPCA and/or the AEMA.

2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished as provided by applicable State and Federal law.

3. Permit Enforcement

This NPDES Permit is a Permit for the purpose of the AWPCA, the AEMA, and the FWPCA, and as such all terms, conditions, or limitations of this Permit are enforceable under State and Federal law.

4. Relief From Liability

Except as provided in Part II.B.1. (Bypass) and Part II.B.2. (Upset), nothing in this Permit shall be construed to relieve the Permittee of civil or criminal liability under the AWPCA, AEMA, or FWPCA for noncompliance with any term or condition of this Permit.

B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 of the FWPCA, 33 U.S.C. §1321.

C. AVAILABILITY OF REPORTS

Except for data determined to be confidential under Code of Alabama 1975, §22-22-9(c), all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential. Knowingly making any false statement in any such report may result in the imposition of criminal penalties as provided for in Section 309 of the FWPCA, 33 U.S.C. §1319, and Code of Alabama 1975, §22-22-14.

D. DEFINITIONS

1. Alabama Environmental Management Act (AEMA) - means Code of Alabama 1975, §§22-22A-1 et. seq., as amended.
2. Alabama Water Pollution Control Act (AWPCA) - means Code of Alabama 1975, §§22-22-1 et. seq., as amended.
3. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar

month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).

4. Arithmetic Mean - means the summation of the individual values of any set of values divided by the number of individual values.
5. BOD - means the five-day measure of the pollutant parameter biochemical oxygen demand
6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD - means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Construction Sand and Gravel mine - means an area, on or beneath land, used or disturbed in activity related to the extraction, removal, or recovery of sand and/or gravel from natural or artificial deposits, including active mining, reclamation, and mineral storage areas.
9. Controlled Surface Mine Drainage – means any surface mine drainage that is pumped or siphoned from the active mining area.
10. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
11. Daily maximum - means the highest value of any individual sample result obtained during a day.
12. Daily minimum - means the lowest value of any individual sample result obtained during a day.
13. Day - means any consecutive 24-hour period.
14. Department - means the Alabama Department of Environmental Management.
15. Director - means the Director of the Department or his authorized representative or designee.
16. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other waste into waters of the state." Code of Alabama 1975, §22-22-1(b)(8).
17. Discharge monitoring report (DMR) - means the form approved by the Director to accomplish monitoring report requirements of an NPDES Permit.
18. DO - means dissolved oxygen.
19. E. coli – means the pollutant parameter Escherichia coli.
20. 8HC - means 8-hour composite sample, including any of the following:
 - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.

- b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
- 21. EPA - means the United States Environmental Protection Agency.
 - 22. Federal Water Pollution Control Act (FWPCA) - means 33 U.S.C. §§1251 et. seq., as amended.
 - 23. Flow – means the total volume of discharge in a 24-hour period.
 - 24. Geometric Mean - means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
 - 25. Grab Sample - means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
 - 26. Indirect Discharger - means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
 - 27. Industrial User - means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category “Division D – Manufacturing” and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
 - 28. mg/L - means milligrams per liter of discharge.
 - 29. MGD - means million gallons per day.
 - 30. Monthly Average - means, other than for E. coli bacteria, the arithmetic mean of all the composite or grab samples taken for the daily discharges collected in one month period. The monthly average for E. coli bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period. (Zero discharges shall not be included in the calculation of monthly averages.)
 - 31. New Discharger - means a person owning or operating any building, structure, facility or installation:
 - a. From which there is or may be a discharge of pollutants;
 - b. From which the discharge of pollutants did not commence prior to August 13, 1979, and which is not a new source; and
 - c. Which has never received a final effective NPDES Permit for dischargers at that site.
 - 32. New Source - means:
 - a. A new source as defined for coal mines by 40 CFR Part 434.11 (1994); and
 - b. Any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of FWPCA which are applicable to such source; or

- (2) After proposal of standards of performance in accordance with Section 306 of the FWPCA which are applicable to such source, but only if the standards are promulgated in accordance with Section 206 within 120 days of their proposal.
33. NH3-N - means the pollutant parameter ammonia, measured as nitrogen.
34. 1-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in one year as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
35. Permit application - means forms and additional information that are required by ADEM Admin. Code r. 335-6-6-.08 and applicable permit fees.
36. Point Source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. §1362(14).
37. Pollutant - includes for purposes of this Permit, but is not limited to, those pollutants specified in Code of Alabama 1975, §22-22-1(b)(3) and those effluent characteristics, excluding flow, specified in Part I.A. of this Permit.
38. Pollutant of Concern - means those pollutants for which a water body is listed as impaired or which contribute to the listed impairment.
39. Pollution Abatement and/or Prevention Plan (PAP Plan) – mining operations plan developed to minimize impacts on water quality to avoid a contravention of the applicable water quality standards as defined in ADEM Admin. Code r. 335-6-9-.03
40. Preparation, Dry - means a dry preparation facility within which the mineral/material is cleaned, separated, or otherwise processed without use of water or chemical additives before it is shipped to the customer or otherwise utilized. A dry preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Dry preparation also includes minor water spray(s) used solely for dust suppression on equipment and roads to minimize dust emissions.
41. Preparation, Wet - means a wet preparation facility within which the mineral/material is cleaned, separated, or otherwise processed using water or chemical additives before it is shipped to the customer or otherwise utilized. A wet preparation plant includes all ancillary operations and structures necessary to clean, separate, or otherwise process the mineral/material, such as storage areas and loading facilities. Wet preparation also includes mineral extraction/processing by dredging, slurry pumping, etc.
42. Privately Owned Treatment Works - means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
43. Publicly Owned Treatment Works (POTW) - means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
44. Receiving Stream - means the "waters" receiving a "discharge" from a "point source".

45. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
46. 10-year, 24-hour precipitation event - means that amount of precipitation which occurs during the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
47. TKN - means the pollutant parameter Total Kjeldahl Nitrogen.
48. TON - means the pollutant parameter Total Organic Nitrogen.
49. TRC - means Total Residual Chlorine.
50. TSS – means the pollutant parameter Total Suspended Solids
51. Treatment facility and treatment system - means all structures which contain, convey, and as necessary, chemically or physically treat mine and/or associated preparation plant drainage, which remove pollutants limited by this Permit from such drainage or wastewater. This includes all pipes, channels, ponds, tanks, and all other equipment serving such structures.
52. 24HC - means 24-hour composite sample, including any of the following:
 - a. The mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
 - b. A sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or
 - c. A sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
53. 24-hour precipitation event - means that amount of precipitation which occurs within any 24-hour period.
54. 2-year, 24-hour precipitation event - means the maximum 24-hour precipitation event with a probable recurrence interval of once in two years as defined by the National Weather Service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed therefrom.
55. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate facilities, lack of preventive maintenance, or careless or improper operation.
56. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the State, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership, or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, §22-22-1(b)(2). "Waters" include all "navigable waters" as defined in §502(7) of the FWPCA, 33 U.S.C. §1362(7), which are within the State of Alabama.

57. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
58. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

E. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

F. PROHIBITIONS AND ACTIVITIES NOT AUTHORIZED

1. Discharges from disposal or landfill activities as described in ADEM Admin. Code div. 335-13 are not authorized by this Permit unless specifically approved by the Department.
2. Relocation, diversion, or other alteration of a water of the State is not authorized by this Permit unless specifically approved by the Department.
3. Lime or cement manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
4. Concrete or asphalt manufacturing or production and discharge of process waters from such manufacturing or production is not authorized by this Permit unless specifically approved by the Department.
5. The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the Permittee or not identified in the application for this Permit or not identified specifically in the description of an outfall in this Permit is not authorized by this Permit.

G. DISCHARGES TO IMPAIRED WATERS

1. This Permit does not authorize new sources or new discharges of pollutants of concern to impaired waters unless consistent with an EPA-approved or EPA-established Total Maximum Daily Load (TMDL) and applicable State law, or unless compliance with the limitations and requirements of the Permit ensure that the discharge will not contribute to further degradation of the receiving stream. Impaired waters are those that do not meet applicable water quality standards and are identified on the State of Alabama's §303(d) list or on an EPA-approved or EPA-established TMDL. Pollutants of concern are those pollutants for which the receiving water is listed as impaired or contribute to the listed impairment.
2. Facilities that discharge into a receiving stream which is listed on the State of Alabama's §303(d) list of impaired waters, and with discharges that contain the pollutant(s) for which the waters are impaired, must within six (6) months of the Final §303(d) list approval, document in its BMP plan how the BMPs will control the discharge of the pollutant(s) of concern, and must ensure that there

will be no increase of the pollutants of concern. A monitoring plan to assess the effectiveness of the BMPs in achieving the allocations must also be included in the BMP plan.

3. If the facility discharges to impaired waters as described above, it must determine whether a TMDL has been developed and approved or established by EPA for the listed waters. If a TMDL is approved or established during this Permit cycle by EPA for any waters into which the facility discharges, the facility must review the applicable TMDL to see if it includes requirements for control of any water discharged by the Permittee. Within six (6) months of the date of TMDL approval or establishment, the facility must notify the Department on how it will modify its BMP plan to include best management practices specifically targeted to achieve the allocations prescribed by the TMDL, if necessary. Any revised BMP plans must be submitted to the Department for review. The facility must include in the BMP plan a monitoring component to assess the effectiveness of the BMPs in achieving the allocations.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION**

ANTIDegradation Rationale

Company Name: L. K. Larson
Facility Name: Hatter Tenants in Common Dirt Pit
County: Mobile
Permit Number: AL0068250
Prepared by: Glen Golson
Date: April 28, 2016
Receiving Waters: Sawmill Creek
Stream Category: Tier II as defined by ADEM Admin. Code 335-6-10-12
Discharge Description: Non-Metallic Construction Sand, Gravel (Dry), Shale, and Common Clay

The following preliminary determination was prepared in accordance with ADEM Admin. Code 335-6-10-12(7)(c):

The Department has reviewed the information submitted by applicant in accordance with ADEM Admin. Code 335-6-10-12(9). The applicant has demonstrated that there are no technically or economically viable treatment options in its alternatives analysis that would completely eliminate a direct discharge.

The permit applicant has indicated that the following economic and social benefits will result from this project:

1. The Permittee currently employs individuals, but will reduce the number of employees if the Permit is not issued.
2. The Permittee will pay tax revenue based on the amount of dirt sold as well as daily operations.
3. The public service to the community will be to support future development in this area.
4. The economic benefit is related to the potential jobs generated from dirt pit operations as well as the support for development in this area.

The Department has determined that the discharge proposed by the permit applicant is necessary for important economic and social development in the area of the outfall location in the receiving water.

Reviewed By: Catherine McNeil 
Date: 5-3-16

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
WATER DIVISION**

NPDES INDIVIDUAL PERMIT RATIONALE

Company Name: L. K. Larson

Facility Name: Hatter Tenants in Common Dirt Pit

County: Mobile

Permit Number: AL0068250

Prepared by: Glen Golson 

Date: April 28, 2016

Receiving Waters: Sawmill Creek, and Groundwater

Permit Coverage: 42A-Non-Metallic Construction Sand, Gravel (Dry), Shale, and Common Clay Pit, Transportation and Storage, and Associated Areas

SIC Codes: 1442 and 1459

The Department has made a tentative determination that the available information is adequate to support issuance of this permit.

This proposed permit covers a Non-Metallic Construction Sand, Gravel (Dry), Shale, and Common Clay Pit, transportation and storage, and associated areas which discharge to ground and surface waters.

This proposed permit authorizes treated discharges into a stream segment, other State water, or local watershed that currently has a water quality classification Fish and Wildlife (F&W) (ADEM Admin. Code ch. 335-6-11). If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of the F&W classification.

Full compliance with the proposed permit terms and conditions is expected to be protective of instream water quality and ensure consistency with applicable instream State water quality standards for the receiving stream.

The effluent limitations for pH of 6.0 – 9.0 s.u. are based on Best Professional Judgment (BPJ) with consideration given to the Effluent Limit Guidelines (ELGs) for Construction Sand and Gravel found in 40 CFR 436.32.

Effluent limitations for TSS are established by BPJs and are based on proper implementation of best management practices at the facility. These parameters are indicative of the pollutants typically discharged by a facility covered by this permit and have been shown to be protective of water quality.

The applicant has requested, in accordance with 40 CFR Part 122.21 and their NPDES permit application, a waiver from testing for the Part A, B, and C pollutants listed in the EPA Form 2C and 2D that are not addressed in their application. They have also certified that due to the processes involved in their mining activity these pollutants are believed to be not present in the waste stream.

The Pollution Abatement/Prevention (PAP) plan for this facility has been prepared by a professional engineer (PE) registered in the State of Alabama and is designed to ensure reduction of pollutants in the waste stream to a level that, if operated properly, the discharge will not contribute to or cause a violation of applicable State water quality standards. The proposed permit terms and conditions are predicated on the basis of ensuring a reduction of pollutants in the discharge to a level that reduces the potential of contributing to or causing a violation of applicable State water quality standards.

In accordance with ADEM Admin. Code r. 335-6-3-.07 the design professional engineer, as evidenced by their seal and/or signature on the application, has accepted full responsibility for the effectiveness of the waste treatment facility to treat the permittee's effluent to meet NPDES permit limitations and requirements, and to fully comply with Alabama's water quality standards, when such treatment facilities are properly operated.

If there is a reasonable potential that a pollutant present in the treated discharges from a facility could cause or contribute to a contravention of applicable State water quality standards above numeric or narrative criteria, 40 CFR Part 122 requires the Department to establish effluent limits using calculated water quality criterion, establish effluent limits on a case-by-case basis using criteria established by EPA, or establish effluent limits based on an indicator parameter. Based on available information, potential pollutants discharged from this facility, if discharged within the concentrations allowed by this permit, would not have a reasonable potential to cause or contribute to a contravention of applicable State water quality standards.

If the requirements of the proposed permit are fully implemented, there is reasonable assurance that the pollutants will not be present in the discharge at levels of concern and/or the facility will not discharge pollutants at levels that will cause or contribute to a violation of applicable State water quality standards in the receiving water.

The applicant is not proposing new or increased discharges into a stream segment or other State water that is included on Alabama's current CWA §303(d) list.

The applicant is not proposing discharges of pollutants to a water of the State with an approved Total Maximum Daily Load (TMDL).

The applicant is not proposing discharges of pollutant(s) to an ADEM identified Tier I water.

The proposed permit does authorize new or increased discharges of pollutants to a Tier II water. Therefore, the Antidegradation Policy (ADEM Admin. Code 335-6-10-.04) does apply to this permit.

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)
NPDES INDIVIDUAL PERMIT APPLICATION**

SURFACE & UNDERGROUND MINERAL & ORE OR MINERAL PRODUCT MINING, QUARRYING, EXCAVATION, BORROWING, HYDRAULIC MINING, STORAGE, PROCESSING, PREPARATION, RECOVERY, HANDLING, LOADING, STORING, OR DISPOSING ACTIVITIES AND ASSOCIATED AREAS INCLUDING PRE-MINING SITE DEVELOPMENT, CONSTRUCTION, EXCAVATION, CLEARING, DISTURBANCE, RECLAMATION, AND ASSOCIATED AREAS

INSTRUCTIONS: PLEASE READ THE ACCOMPANYING INSTRUCTIONS CAREFULLY BEFORE COMPLETING THIS FORM. COMPLETE ALL QUESTIONS. RESPOND WITH "N/A" AS APPROPRIATE. INCOMPLETE OR INCORRECT ANSWERS OR MISSING SIGNATURES WILL DELAY PROCESSING. ATTACH ADDITIONAL COMMENTS OR INFORMATION AS NEEDED. IF SPACE IS INSUFFICIENT, CONTINUE ON AN ATTACHED SHEET(S) AS NECESSARY. COMMENCEMENT OF ACTIVITIES APPLIED FOR AS DETAILED IN THIS APPLICATION ARE NOT AUTHORIZED UNTIL PERMIT COVERAGE HAS BEEN ISSUED BY THE DEPARTMENT.

PLEASE TYPE OR PRINT IN INK ONLY.

PURPOSE OF THIS APPLICATION

- Initial Permit Application for New Facility
 Initial Permit Application for Existing Facility (e.g. facility previously permitted less than 5 acres)
 Modification of Existing Permit
 Reissuance of Existing Permit
 Reissuance & Modification of Existing Permit
 Reissuance & Transfer of Existing Permit
 Revocation and Reissuance of Existing Permit
 Other Permit had expired prior to submittal of renewal application

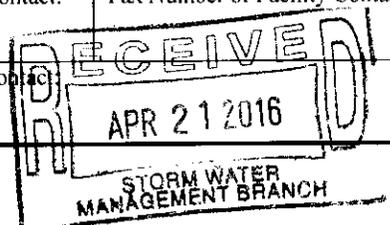
I. GENERAL INFORMATION

NPDES Permit Number (Not applicable if initial permit application): <i>AL 0068250</i>	County(s) in which Facility is Located: Mobile
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Company/Permittee Name: L.K. Larson			Facility Name (e.g., Mine Name, Pit Name, etc.): Hatter Tenants in Common Dirt Pit		
Mailing Address of Company/Permittee: <i>c/o Larson & McGowin, Inc., PO Box 2143, Mobile, AL 36652</i>			Physical Address of Facility (as near as possible to entrance): Sec. 4, T2S, R1W Off Radcliff Road		
City: Mobile	State: AL	Zip: 36652	City: Mobile	State: AL	Zip: 36652
Permittee Phone Number: (251) 438-4581		Permittee Fax Number: (251) 438-4604		Latitude and Longitude of entrance: 30 deg 53' 41.07"; 88 deg 05' 08.77"	

Responsible Official (as described on page 13 of this application): L. K. Larson			Responsible Official Title: Co-Owner		
Mailing Address of Responsible Official: P. O. Box 2413			Physical Address of Responsible Official: 10 N. Florida Street		
City: Mobile	State: AL	Zip: 36652	City: Mobile	State: AL	Zip: 36607
Phone Number of Responsible Official: (251) 438-4581		Fax Number of Responsible Official: (251) 438-4604		Email Address of Responsible Official: llarson@larsonmcgowin.com	

Facility Contact: Same as above			Facility Contact Title:		
Physical Address of Facility Contact:			Phone Number of Facility Contact:	Fax Number of Facility Contact:	
City:	State:	Zip:	Email Address of Facility Contact:		



II. MEMBER INFORMATION

A. Identify the name, title/position, and unless waived in writing by the Department, the residence address of every officer, general partner, LLP partner, LLC member, investor, director, or person performing a function similar to a director, of the applicant, and each person who is the record or beneficial owner of 10 percent or more of any class of voting stock of the applicant, or any other responsible official(s) of the applicant with legal or decision making responsibility or authority for the facility:

Name:	Title/Position:	Physical Address of Residence (P.O. Box is Not Acceptable)
<u>See attached.</u>	_____	_____
_____	_____	_____
_____	_____	_____

B. Other than the "Company/Permittee" listed in Part I., identify the name of each corporation, partnership, association, and single proprietorship for which any individual identified in Part II.A. is or was an officer, general partner, LLP partner, LLC member, investor, director, or individual performing a function similar to a director, or principal (10% or more) stockholder, that had an Alabama NPDES permit at any time during the five year (60 month) period immediately preceding the date on which this form is signed:

Name of Corporation, Partnership, Association, or Single Proprietorship:	Name of Individual from Part II.A.:	Title/Position in Corporation, Partnership, Association, or Single Proprietorship:
<u>None</u>	_____	_____
_____	_____	_____
_____	_____	_____

III. LEGAL STRUCTURE OF APPLICANT

A. Indicate the legal structure of the "Company/Permittee" listed in Part I:

Corporation
 Association
 Individual
 Single Proprietorship
 Partnership
 LLP
 LLC
 Government Agency: _____
 Other: Tenancy in Common; see attached reference list of Owners

B. If not an individual or single proprietorship, is the "Company/Permittee" listed in Part I. properly registered and in good standing with the Alabama Secretary of State's Office? (If the answer is "No," attach a letter of explanation.) Yes No

C. Parent Corporation and Subsidiary Corporations of Applicant, if any: None

D. Land Owner(s): See Attached 2 counterparts of Exhibit A

E. Mining Sub-contractor(s)/Operator(s), if known: none at this time

IV. COMPLIANCE HISTORY

A. Has the applicant ever had any of the following:

	Yes	No	
(1) An Alabama NPDES, SID, or UIC permit suspended or terminated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
(2) An Alabama license to mine suspended or revoked?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
(3) An Alabama or federal mining permit suspended or terminated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
(4) A reclamation bond, or similar security deposited in lieu of a bond, or portion thereof, forfeited?			Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>
(5) A bond or similar security deposited in lieu of a bond, or portion thereof, the purpose of which was to secure compliance with any requirement of the Alabama Water Improvement Commission or Alabama Department of Environmental Management, forfeited?			<input type="checkbox"/> <input checked="" type="checkbox"/>

(If the response to any item of Part IV.A. is "Yes," attach a letter of explanation.)

B. Identify every Warning Letter, Notice of Violation (NOV), Administrative Action, or litigation issued to the applicant, parent corporation, subsidiary, general partner, LLP partner, or LLC member and filed by ADEM or EPA during the three year (36 months) period preceding the date on which this form is signed. Indicate the date of issuance, briefly describe alleged violations, list actions (if any) to abate alleged violations, and indicate date of final resolution:

None

V. OTHER PERMITS/AUTHORIZATIONS

A. List any other NPDES or other environmental permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, Alabama Surface Mining Commission (ASMC), Alabama Department of Industrial Relations (ADIR), or other agency, to the applicant, parent corporation, subsidiary, or LLC member for this facility whether presently effective, expired, suspended, revoked, or terminated:

ADIR Permit 014434 (File Number 2-Hatter-1)

B. List any other NPDES or other ADEM permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, ASMC, or ADIR, to the applicant, parent corporation, subsidiary, or LLC member for other facilities whether presently effective, expired, suspended, revoked, or terminated:

AL0068250 - only permit that has been issued

VI. PROPOSED SCHEDULE

Anticipated Activity Commencement Date: June 2015 Anticipated Activity Completion Date: June 2020

VII. ACTIVITY DESCRIPTION & INFORMATION

A. Proposed Total Area of the Permitted Site: 6 acres Proposed Total Disturbed Area of the Permitted Site: 6 acres

B. Township(s), Range(s), Section(s): Township 2 South, Range 1 West, Section 4

C. Detailed Directions to Site: From Hwy 43 in Creola, travel west on Radcliff Road approximately 2.5 miles to water canal. Continue 0.4, miles, turn north on gravel road. Continue 0.5 miles to dirt pit.

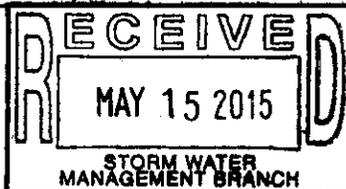
D. Is/ will this facility:

- | | Yes | No |
|---|-------------------------------------|-------------------------------------|
| (1) an existing facility which currently results in discharges to State waters? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (2) a proposed facility which will result in a discharge to State waters? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (3) be located within any 100-year flood plain? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (4) discharge to Municipal Separate Storm Sewer? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (5) discharge to waters of or be located in the Coastal Zone? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (6) need/have ADEM UIC permit coverage? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (7) be located on Indian/ historically significant lands? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (8) need/have ADEM SID permit coverage? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (9) need/have ASMC permit coverage? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (10) need/have ADIR permit coverage? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (11) generate, treat, store, or dispose of hazardous or toxic waste ? (If "Yes," attach a detailed explanation.) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (12) be located in or discharge to a Public Water Supply (PWS) watershed or be located within 1/2 mile of any PWS well? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

VIII. MATERIAL TO BE REMOVED, PROCESSED, OR TRANSLOADED

List relative percentages of the mineral(s) or mineral product(s) that are proposed to be and/or are currently mined, quarried, recovered, prepared, processed, handled, transloaded, or disposed at the facility. **If more than one mineral is to be mined, list the relative percentages of each mineral by tonnage for the life of the mine.**

<u>70%</u> Dirt &/or Chert	Sand &/or Gravel	Chalk	Talc	Crushed rock (other)
Bentonite	Industrial Sand	Marble	<u>30%</u> Shale &/or Common Clay	Sandstone
Coal	Kaolin	Coal fines/refuse recovery	Coal product, coke	Slag, Red Rock
Fire clay	Iron ore	Dimension stone	Phosphate rock	Granite
Bauxitic Clay	Bauxite Ore	Limestone, crushed limestone and dolomite		
Gold, other trace minerals:		Other:		
Other:		Other:		
Other:		Other:		



IX. PROPOSED ACTIVITY TO BE CONDUCTED

A. Type(s) of activity presently conducted at applicant's existing facility or proposed to be conducted at facility (check all that apply):

<input checked="" type="checkbox"/> Surface mining	<input type="checkbox"/> Underground mining	<input type="checkbox"/> Quarrying	<input type="checkbox"/> Auger mining	<input type="checkbox"/> Hydraulic mining
<input type="checkbox"/> Within-bank mining	<input type="checkbox"/> Solution mining	<input type="checkbox"/> Mineral storing	<input type="checkbox"/> Lime production	<input type="checkbox"/> Cement production
<input type="checkbox"/> Synthetic fuel production	<input type="checkbox"/> Alternative fuels operation	<input type="checkbox"/> Mineral dry processing (crushing & screening)	<input type="checkbox"/> Mineral wet preparation	
<input type="checkbox"/> Other beneficiation & manufacturing operations	<input type="checkbox"/> Mineral loading	<input type="checkbox"/> Chemical processing or leaching		
<input type="checkbox"/> Construction related temporary borrow pits/areas	<input checked="" type="checkbox"/> Mineral transportation ___rail ___barge <input checked="" type="checkbox"/> truck			
<input type="checkbox"/> Preparation plant waste recovery	<input type="checkbox"/> Hydraulic mining, dredging, instream or between stream-bank mining			
<input checked="" type="checkbox"/> Grading, clearing, grubbing, etc.	<input type="checkbox"/> Pre-construction ponded water removal	<input checked="" type="checkbox"/> Excavation		
<input type="checkbox"/> Pre-mining logging or land clearing	<input type="checkbox"/> Waterbody relocation or other alteration	<input type="checkbox"/> Creek/stream crossings		
<input type="checkbox"/> Onsite construction debris or equipment storage/disposal	<input type="checkbox"/> Onsite mining debris or equipment storage/disposal			
<input checked="" type="checkbox"/> Reclamation of disturbed areas	<input type="checkbox"/> Chemicals used in process or wastewater treatment (coagulant, biocide, etc.)			
<input type="checkbox"/> Adjacent/associated asphalt/concrete plant(s)	<input type="checkbox"/> Low volume sewage treatment package plant			
<input type="checkbox"/> Other: _____				

B. Primary SIC Code: 1442 Description: Construction sand and gravel
 Secondary SIC Code(s): 1459 Description: Clay, ceramic and refractory minerals, not elsewhere classified.

C. Narrative Description of the Activity: Excavation of sand/clay material for use as construction fill.

X. FUEL – CHEMICAL HANDLING, STORAGE & SPILL PREVENTION CONTROL & COUNTERMEASURES (SPCC) PLAN

A. Will fuels, chemicals, compounds, or liquid waste be used or stored onsite? Yes No

B. If "Yes," identify the fuel, chemicals, compounds, or liquid waste and indicate the volume of each:

Volume	Contents	Volume	Contents	Volume	Contents
_____ gallons	_____	_____ gallons	_____	_____ gallons	_____
_____ gallons	_____	_____ gallons	_____	_____ gallons	_____

C. If "Yes," a detailed SPCC Plan with acceptable format and content, including diagrams, must be attached to application in accordance with ADEM Admin. Code R. 335-6-6-.12(r). Unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis, Material Safety Data Sheets (MSDS) for chemicals/compounds used or proposed to be used at the facility must be included in the SPCC Plan submittal.

XI. POLLUTION ABATEMENT & PREVENTION (PAP) PLAN

A. For non-coal mining facilities, a PAP Plan in accordance with ADEM Admin. Code r. 335-6-9-.03 has been completed and is attached as part of this application. Yes No

B. For coal mining facilities, a detailed PAP Plan has been submitted to ASMC according to submittal procedures for ASMC regulated facilities. Yes No

(1) If "Yes" to Part XI.B., provide the date that the PAP Plan was submitted to ASMC: _____

(2) If "No" to Part XI.B., provide the anticipated date that the PAP Plan will be submitted to ASMC: _____

XII. TOPOGRAPHIC MAP SUBMITTAL

Attach to this application a 7.5 minute series U.S.G.S. topographic map(s) or equivalent map(s) no larger than, or folded to a size of 8.5 by 11 inches (several pages may be necessary), of the area extending to at least one mile beyond property boundaries. The topographic or equivalent map(s) must include a caption indicating the name of the topographic map, name of the applicant, facility name, county, and township, range, & section(s) where the facility is located. Unless approved in advance by the Department, the topographic or equivalent map(s), at a minimum, must show:

(a) An outline of legal boundary of entire property (property lines and lease boundaries)	(i) All surrounding unimproved/improved roads
(b) An outline of the facility	(j) High-tension power lines and railroad tracks
(c) All existing and proposed disturbed areas	(k) Buildings and structures, including fuel/water tanks
(d) Location of discharge areas	(l) Contour lines, township-range-section lines
(e) Proposed and existing discharge points	(m) Drainage patterns, swales, washes
(f) Perennial, intermittent, and ephemeral streams	(n) All drainage conveyance/treatment structures (ditches, berms, etc.)
(g) Lakes, springs, water wells, wetlands	(o) Any other pertinent or significant feature
(h) All known facility dirt/improved access/haul roads	

XVI. DISCHARGE STRUCTURE DESCRIPTION & POLLUTANT SOURCE

The applicant is required to supply outfall number(s) as it appears on the map(s) required by this application [if this application is for a modification to an existing permit do not change the numbering sequence of the permitted outfalls], describe each, (e.g., pipe, spillway, channel, tunnel, conduit, well, discrete fissure, or container), and identify the origin of pollutants. The response must be precise for each outfall. If the discharge of pollutants from any outfall is the result of commingling of waste streams from different origins, each origin must be completely described.

Outfall	Discharge structure Description	Description of Origin Of pollutants	Surface Discharge	Groundwater Discharge	Wet Prep -Other Production Plant	Pumped or Controlled Discharge	Low Volume STP	Other
002E	Pipe	(6)	X	X	N/A	N/A	N/A	

Origin of Pollutants – typical examples: (1) Discharge of drainage from the underground workings of an underground coal mine, (2) Discharge of drainage from a coal surface mine, (3) Discharge of drainage from a coal preparation plant and associated areas, (4) Discharge of process wastewater from a gravel-washing plant, (5) Discharge of wastewater from an existing source coal preparation plant, (6) Discharge of drainage from a sand and gravel pit, (7) Pumped discharge from a limestone quarry, (8) Controlled surface mine drainage (pumped or siphoned), (9) Discharge of drainage from mine reclamation, (10) Other: _____.

XVII. PROPOSED NEW OR INCREASED DISCHARGES

A. Pursuant to ADEM Admin. Code Chapter 335-6-10-.12(9), responses to the following questions must be provided by the applicant requesting NPDES permit coverage for new or expanded discharges of pollutant(s) to Tier 2 waters (except discharges eligible for coverage under general permits). As part of the permit application review process, the Department is required to consider, based on the applicant's demonstration, whether the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters are located.

- Yes. New/increased discharges of pollutant(s) or discharge locations to Tier 2 waters are proposed.
- No. New/increased discharges of pollutant(s) or discharge locations to Tier 2 waters are not proposed.

B. If "Yes," complete this Part (XVII.B.), Part XVIII, and XIX. Attach additional sheets/documentation and supporting information as needed.

(1) What environmental or public health problem will the discharge be correcting?

The proposed discharge will limit sediment laden discharge from entering Sawmill Creek. By containing the runoff from mining activities to the dirt pit itself and using the back portion of the property as a sedimentation pond, the facility should limit its discharge and therefore protect water quality in Sawmill Creek and downstream water bodies.

(2) How much will the discharger be increasing employment (at its existing facility or as a result of locating a new facility)?

The permit should have little or no effect as far as increasing employment in this situation since it is an existing facility. Larson, McGowin employs others property managers that will be used to handle dirt pit operations on a part time basis. As the facility grows and overall sales increase, Larson McGowin may have to increase its employment by at least one person to handle dirt pit operations on a full time basis.

(3) How much reduction in employment will the discharger be avoiding?

The property manager, Larson McGowin, Inc., could immediately have to cut back its staff if the permit is not issued because there would be no need to "manage" the property (i.e. administrative, submittal of DMRs, etc.). Although the pit is not currently operational, the property is being managed and the permit is desired for future use as a dirt pit facility.

(4) How much additional state or local taxes will the discharger be paying?

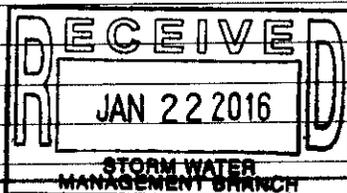
The permit should have little or no effect as far as additional taxes in this situation since it is an existing facility. Should the facility become fully operational, tax revenue could be increased significantly from the selling of dirt as well as daily operations at the facility. Estimated revenue from the dirt pit for the first year would be \$500,000 from dirt sales. This equates to approximately \$50,000 in sales taxes generated as well as the additional business licenses and business taxes that would be generated during pit operations.

(5) What public service to the community will the discharger be providing?

A dirt pit in northern Mobile County to support future development in this area.

(6) What economic or social benefit will the discharger be providing to the community?

The economic benefit is related to the potential jobs generated from dirt pit operations as well as the support for development in this area.



XVIII. ALTERNATIVES ANALYSIS – ADEM Form 311 3/02

Pursuant to ADEM Admin. Code Chapter 335-6-10, an evaluation of the discharge alternatives identified below has been completed and the following conclusions were reached. All proposed new or expanded discharges of pollutant(s) covered by the Individual NPDES permitting program are subject to the provisions of the antidegradation policy. As part of the permit application review process, the Department is required to determine, based on the applicant's demonstration, that the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters are located. As a part of this demonstration, a registered professional engineer (PE) licensed to practice in the State of Alabama must complete an evaluation of the discharge alternatives, to include calculation of total annualized project costs (Item XIX) for each technically feasible alternative. Technically feasible alternatives with total annualized pollution control project costs that are less than 110% of the preferred alternative total annualized pollution control project costs for the Tier 2 new or increased discharge proposal are considered viable alternatives. Supporting documentation is attached, referenced, or otherwise handled as appropriate.

Alternative	Viable	Non-Viable	Reason/Rationale For Indicating Non-Viable
1) Treatment/Discharge Proposed In This Application	X		Using a portion of the site as sedimentation pond is an effective option
2) Land Application		X	Not viable: would require usage of dirt pit mining area for application of stormwater
3) Pretreatment/Discharge to POTW By SID Permit		X	Access to a collection system is not viable; no nearby POTW to connect
4) Relocation of Discharge		X	No other viable locations for discharge without accessing adjacent properties
5) Reuse/Recycle – Pollution Prevention		X	No viable reuse or recycle options are readily available for this application
6) Other Process/Treatment Alternatives		X	Sedimentation has been identified as the best available option for this application
7) Underground Injection By UIC Permit		X	Not viable: would require usage of dirt pit mining area for application of stormwater
8) Other Project Specific Alternative(s) Identified By the Applicant Or The ADEM			
9) Other Project Specific Alternative(s) Identified By the Applicant Or The ADEM			

COMMENTS: Dirt pit operations would only allow for the permitted discharge option of stormwater

XIX. CALCULATION OF TOTAL ANNUALIZED PROJECT COSTS FOR PRIVATE SECTOR PROJECTS - ADEM Form 313 8/02
(ADEM Form 312 3/02 - Public Sector Project is available upon request)

This item must be completed for each technically feasible alternative evaluated in Item XVIII. Copy, complete, and attach additional blocks/sheets and supporting information as needed.

Capital Costs of pollution control project to be expended or financed by applicant (Supplied by applicant)	\$ 25,000 (1)	* While actual payback schedules may differ across projects and companies, assume equal annual payments over a 10-year period for consistency in comparing projects.
Interest Rate for Financing (Expressed as a decimal)	0.10 (i)	
Time Period of Financing (Assume 10 years *)	10 years (n)	
Annualization Factor ** = $\frac{i}{(1+i)^n - 1} + i$ i = Interest Rate	0.163 (2)	
Annualized Capital Cost [Calculate: (1) x (2)]	\$ 4,068.63 (3)	** Or refer to Appendix B (application information) for calculated annualization factors.
Annual Cost of Operation & Maintenance (including but not limited to monitoring, inspection, permitting fees, waste disposal charges, repair, administration & replacement) ***	\$ 1,500.00 (4)	*** For recurring costs that occur less frequently than once a year, pro rate the cost over the relevant number of years (e.g., for pumps replaced once every three years, include one-third of the cost in each year).
Total Annual Cost of Pollution Control Project [(3) + (4)]	\$ 5,568.63 (5)	

XX. POLLUTION ABATEMENT PLAN (PAP) SUMMARY

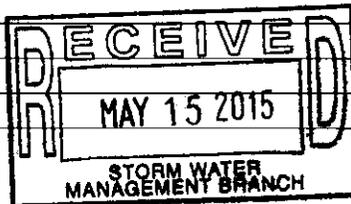
Outfall(s): 002 E

Y	N	N/A	
X			Runoff from all areas of disturbance is controlled
		X	Drainage from pit area, stockpiles, and spoil areas directed to a sedimentation pond
		X	Sedimentation basin at least 0.25 acre/feet for every acre of disturbed drainage
		X	Sedimentation basin cleaned out when sediment accumulation is 60% of design capacity
		X	Trees, boulders, and other obstructions removed from pond during initial construction
		X	Width of top of dam greater than 12'
		X	Side slopes of dam no steeper than 3:1
		X	Cutoff trench at least 8' wide
		X	Side slopes of cutoff trench no less than 1:1
		X	Cutoff trench located along the centerline of the dam
		X	Cutoff trench extends at least 2' into bedrock or impervious soil
		X	Cutoff trench filled with impervious material
		X	Embankments and cutoff trench 95% compaction standard proctor ASTM
		X	Embankment free of roots, tree debris, stones >6" diameter, etc.
		X	Embankment constructed in lifts no greater than 12"
X			Spillpipe sized to carry peak flow from a one year storm event
X			Spillpipe will not chemically react with effluent
X			Subsurface withdrawal
		X	Anti-seep collars extend radially at least 2' from each joint in spillpipe
		X	Splashpad at the end of the spillpipe
X			Emergency Spillway sized for peak flow from 25-yr 24-hr event if discharge not into PWS classified stream
X			Emergency spillway sized for peak flow from 50-yr 24-hr event if discharge is into PWS classified stream
X			Emergency overflow at least 20' long
X			Side slopes of emergency spillway no steeper than 2:1
X			Emergency spillway lined with riprap or concrete
X			Minimum of 1.5' of freeboard between normal overflow and emergency overflow
X			Minimum of 1.5' of freeboard between max. design flow of emergency spillway and top of dam
X			All emergency overflows are sized to handle entire drainage area for ponds in series
X			Dam stabilized with permanent vegetation
X			Sustained grade of haul road <10%
X			Maximum grade of haul road <15% for no more than 300'
X			Outer slopes of haul road no steeper than 2:1
X			Outer slopes of haul road vegetated or otherwise stabilized
		X	Detail drawings supplied for all stream crossings
X			Short-Term Stabilization/Grading And Temporary Vegetative Cover Plans
X			Long-Term Stabilization/Grading And Permanent Reclamation or Water Quality Remediation Plans

The applicant has completed the surface water discharge alternatives analysis and has supporting documentation, including annualized costs for each technically feasible alternative available for review upon request

IDENTIFY AND PROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(S):

Sedimentation pond and discharge pipe to be implemented if needed once excavation activities begin.
There are no stream crossings required.



XXI. POLLUTION ABATEMENT PLAN (PAP) REVIEW CHECKLIST

Y	N	N/A
x		
x		
x		

PE Seal with License #
 Name and Address of Operator
 Legal Description of Facility

General Information:

X		
X		
X		
X		
X		

Name of Company
 Number of Employees
 Products to be Mined
 Hours of Operation
 Water Supply and Disposition

Topographic Map:

X		
		X
X		
X		
X		

Mine Location
 Location of Prep Plant
 Location of Treatment Basins
 Location of Discharge Points
 Location of Adjacent Streams

1" - 500' or Equivalent Facility Map:

X		
X		
X		
X		

Drainage Patterns
 Mining Details
 All Roads, Structures Detailed
 All Treatment Structures Detailed

Detailed Design Diagrams:

X		
X		
X		

Plan Views
 Cross-section Views
 Method of Diverting Runoff to Treatment Basins

Narrative of Operations:

X		
X		
X		

Raw Materials Defined
 Processes Defined
 Products Defined

Schematic Diagram:

X		
X		
X		

Points of Waste Origin
 Collection System
 Disposal System

Post Treatment Quantity and Quality of Effluent:

X		
X		
X		
X		

Flow
 Suspended Solids
 Iron Concentration
 pH

Description of Waste Treatment Facility:

X		
X		
X		
X		

Pre-Treatment Measures
 Recovery System
 Expected Life of Treatment Basin
 Schedule of Cleaning and/or abandonment

Other:

X		
X		
X		
X		
		X

Precipitation/Volume Calculations/Diagram Attached
 BMP Plan for Haul Roads
 Measures for Minimizing Impacts to Adjacent Stream i.e., Buffer Strips, Berms, etc.
 Methods for Minimizing Nonpoint Source Discharges
 Facility Closure Plans
 PE Rationale(s) For Alternate Standards, Designs or Plans

IDENTIFY AND PROVIDE DETAILED EXPLANATION FOR ANY "N" OR "N/A" RESPONSE(s):

No preparation plants are utilized.
No alternative standards, designs, or plans are proposed

XXII. INFORMATION

Contact the Department prior to submittal with any questions or to request acceptable alternate content/format. Be advised that you are not authorized to commence regulated activity until this application can be processed, publicly noticed, and approval to proceed is received in writing from the Department.

EPA Form(s) 1 and 2F need not be submitted unless specifically required by the Department. EPA Form(s) 2C and/or 2D are required to be submitted unless the applicant is eligible for a waiver and the Department grants a waiver.

Planned/proposed mining sites that are greater than 5 acres, that mine/process coal or metallic mineral/ore, or that have wet or chemical processing, must apply for and obtain coverage under and Individual NPDES Permit prior to commencement of any land disturbance. Such coverage may be requested via this ADEM Form 315.

The applicant is advised to contact:

- (1) The Alabama Surface Mining Commission (ASMC) if coal, coal fines, coal refuse, or other coal related materials are mined, transloaded, processed, *etc.*;
- (2) The Alabama Department of Industrial Relations (ADIR) if conducting non-coal mining operations;
- (3) The Alabama Historical Commission for requirements related to any potential historic or culturally significant sites;
- (4) The Alabama Department of Conservation and Natural Resources (ADCNR) for requirements related to potential presence of threatened/endangered species; and
- (5) The US Army Corps of Engineers, Mobile or Nashville Districts, if this project could cause fill to be placed in federal waters or could interfere with navigation.

The Department must be in receipt of a completed version of this form, including any supporting documentation, and the appropriate processing fee (including Greenfield Fee and Biomonitoring & Toxicity Limits fee(s), if applicable), prior to development of a draft NPDES permit. Send the completed form, supporting documentation, and the appropriate fees to:

Water Division
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463
Phone: (334) 271-7823
Fax: (334) 279-3051
h2omail@adem.state.al.us
www.adem.alabama.gov

XXIII. PROFESSIONAL ENGINEER (PE) CERTIFICATION

A detailed, comprehensive Pollution Abatement/Prevention Plan (PAP) must be prepared, signed, and certified by a professional engineer (PE), registered in the State of Alabama as follows:

"I certify on behalf of the applicant, that I have completed an evaluation of discharge alternatives (Item XVIII) for any proposed new or increased discharges of pollutant(s) to Tier 2 waters and reached the conclusions indicated. I certify under penalty of law that technical information and data contained in this application, and a comprehensive PAP Plan including any attached SPCC plan, maps, engineering designs, etc. acceptable to ADEM, for the prevention and minimization of all sources of pollution in stormwater and authorized related process wastewater runoff has been prepared under my supervision for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B. If the PAP plan is properly implemented and maintained by the Permittee, discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other permit requirements. The applicant has been advised that appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices as detailed in the PAP plan must be fully implemented and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices, permit requirements, and other ADEM requirements to ensure protection of groundwater and surface water quality."

Address McFadden Engineering, Inc. PE Registration # 26748
Name and Title (type or print) Jason B. Newton, P. E. Phone Number (251) 470-6870
Signature Jason B. Newton Date Signed 4-19-16

XXIV. RESPONSIBLE OFFICIAL SIGNATURE

This application must be signed by a Responsible Official of the applicant pursuant to ADEM Admin. Code Rule 335-6-6-.09 who has overall responsibility for the operation of the facility.

"I certify under penalty of law that this document, including technical information and data, the PAP plan, including any SPCC plan, maps, engineering designs, and all other attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the PE and other person or persons under my supervision who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine or imprisonment for knowing violations.

A comprehensive PAP Plan to prevent and minimize discharges of pollution to the maximum extent practicable has been prepared at my direction by a PE for this facility utilizing effective, good engineering and pollution control practices and in accordance with the provisions of ADEM Admin. Code Division 335-6, including Chapter 335-6-9 and Appendices A & B, and information contained in this application, including any attachments. I understand that regular inspections must be performed by, or under the direct supervision of, a PE and all appropriate pollution abatement/prevention facilities and structural & nonstructural management practices or Department approved equivalent management practices identified by the PE must be fully implemented prior to and concurrent with commencement of regulated activities and regularly maintained as needed at the facility in accordance with good sediment, erosion, and other pollution control practices and ADEM requirements. I understand that the PAP plan must be fully implemented and regularly maintained so that discharges of pollutants can reasonably be expected to be effectively minimized to the maximum extent practicable and according to permit discharge limitations and other requirements to ensure protection of groundwater and surface water quality. I understand that failure to fully implement and regularly maintain required management practices for the protection of groundwater and surface water quality may subject the Permittee to appropriate enforcement action.

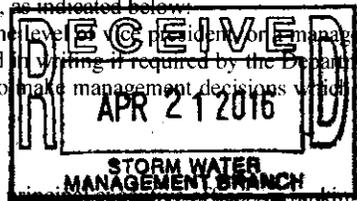
I certify that this form has not been altered, and if copied or reproduced, is consistent in format and identical in content to the ADEM approved form.

I further certify that the discharges described in this application have been tested or evaluated for the presence of non-stormwater discharges and any non-mining associated beneficiation/process pollutants and wastewaters have been fully identified."

Name (type or print) L. K. Larson Official Title Co-Owner
Signature L.K. Larson Date Signed April 19, 2016

*335-6-6-.09 Signatories to Permit Applications and Reports.

- (1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:
 - (a) In the case of a corporation, by a principal executive officer of at least the level of president or manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
 - (b) In the case of a partnership, by a general partner;
 - (c) In the case of a sole proprietorship, by the proprietor; or
 - (d) In the case of a municipal, state, federal, or other public entity by either a

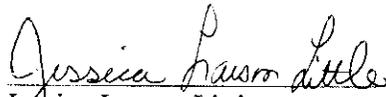


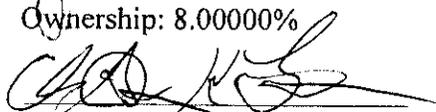
STATE OF ALABAMA)

COUNTY OF MOBILE)

KNOW ALL MEN BY THESE PRESENTS, that we, being all of the tenants in common of HATTER TENANTS IN COMMON, a tenancy in common existing under Alabama law, do hereby constitute and appoint L. KEVILLE LARSON as agent for said tenants in common and in our names on our behalf, to do and execute as Permittee and Responsible Official, the Alabama Department of Environmental Management (ADEM) NPDES Individual Permit Application form attached hereto and made a part hereof, or any renewals of such. The liability and obligations of each of the undersigned contained herein shall be limited on a pro rata basis to the ownership interests in said property as set forth below.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals in multiple counterparts on this 11th day of April, 2016.


Jessica Larson Little
Ownership: 8.00000%


Christopher Keville Larson
Ownership: 8.00000%

True McGowin Nicolson
Ownership: 14.80992%


Laurens Keville Larson
Ownership: 3.44444%


Theresa L. Scheetz
Ownership: 22.22222%


Eloise E. Larson
Ownership: 2.77778%

Mary Alice Beck
Ownership: 18.52342%

Trust Agreement dated April 16, 1968 FBO the
Family of J. Greeley McGowin, II
Ownership: 22.22222%

By _____
E. Mason McGowin, Jr., Co-Trustee

EXHIBIT A

STATE OF ALABAMA)

COUNTY OF MOBILE)

KNOW ALL MEN BY THESE PRESENTS, that we, being all of the tenants in common of HATTER TENANTS IN COMMON, a tenancy in common existing under Alabama law, do hereby constitute and appoint L. KEVILLE LARSON as agent for said tenants in common and in our names on our behalf, to do and execute as Permittee and Responsible Official, the Alabama Department of Environmental Management (ADEM) NPDES Individual Permit Application form attached hereto and made a part hereof, or any renewals of such. The liability and obligations of each of the undersigned contained herein shall be limited on a pro rata basis to the ownership interests in said property as set forth below.

IN WITNESS WHEREOF, the undersigned have hereunto set their hands and seals in multiple counterparts on this 11 day of April, 2016.

Jessica Larson Little
Ownership: 8.00000%

Theresa L. Scheetz
Ownership: 22.22222%

Christopher Keville Larson
Ownership: 8.00000%

Eloise E. Larson
Ownership: 2.77778%

True McGowin Nicolson
True McGowin Nicolson
Ownership: 14.80992%

Mary Alice Beck
Mary Alice Beck
Ownership: 18.52342%

Laurens Keville Larson
Ownership: 3.44444%

Trust Agreement dated April 16, 1968 FBO the
Family of J. Greeley McGowin, II
Ownership: 22.22222%

By E. Mason McGowin, Jr.
E. Mason McGowin, Jr., Co-Trustee

EXHIBIT A

May 2015

Attachment to
NPDES INDIVIDUAL PERMIT APPLICATION
for
Hatter Tenants in Common Dirt Pit
Sec. 4, T2S, R1W
Mobile County, Alabama

Ownership information for Item I.

Hatter Tenants in Common is an undivided joint ownership. The following individuals each have an interest in the ownership :

Laurens Keville Larson*
Eloise E. Larson
Mary Alice Beck
True M. Nicolson
Jessica Larson Little
Christopher Keville Larson
Theresa L. Scheetz
Henry I. Barclay, III, Norman F. McGowin, Jr., and E. Mason McGowin, Jr. As
Trustees Under Trust Agreement dated April 16, 1968 for the benefit of
the family of J. Greeley McGowin, II

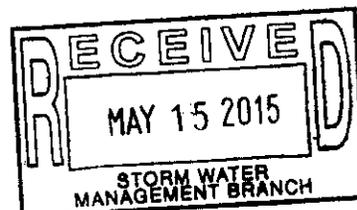
*Acts as agent for the owners

The address for each of the individuals listed above, for matters dealing with Hatters Tenants in Common, is:

c/o Mr. L. K. Larson
Larson & McGowin, Inc.
10 N. Florida Street
P. O. Box 2143
Mobile, AL 36652
251/438-4581

Mr. L. K. Larson and Mrs. Eloise E. Larson
2105 Venetia Road
Mobile, AL 36605

Mrs. Mary Alice Beck
303 Cyril Lane
Richmond, VA 23229



Mrs. True M. Nicolson
2252 Ashland Place Avenue
Mobile, AL 36607

Jessica Larson Little
306 Springwood North
Mobile, AL 36608

Christopher Keville Larson
701-B Carolyn Drive
Austin, TX 78705

Theresa L. Scheetz
P. O. Box 4048 Spring Island
Oakatie, S.C. 29909

Henry I. Barclay, III, Norman F. McGowin, Jr., and E. Mason McGowin, Jr. As Trustees
Under Trust Agreement dated April 16, 1968 for the benefit of the family of J.
Greeley McGowin, II:

C/o Mrs. True M. Nicolson
2252 Ashland Place Avenue
Mobile, AL 36607



May 12, 2015

Amber Powell
Environmental Engineer Specialist
Mining and Natural Resource Section
Stormwater Management Branch-Water Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110

RE: Reissuance of NPDES Permit Number AL0068250
Hatter Tenants in Common Dirt Pit
Section 4, Township 2 South, Range 1 West
Mobile County Alabama

Dear Ms. Powell:

On behalf of Larson & McGowin, Inc., McFadden Engineering, Inc. has prepared the enclosed permit application for the reissuance of NPDES Permit Number AL0068250 for the Hatter Tenants in Common Dirt Pit. The permit proposes 6 acres of disturbance for the purpose of a dirt pit. This acreage is a portion of a 1493 acre tract of land off Radcliff Road in Creola, Alabama.

The facility wishes to renew the NPDES permit for the property which expired. The previous permit was issued in 2009 and no discharge related to excavation or surface mining activities has occurred on the property.

Included in our submittal is the permit application fee, ADEM Form 315, and a revised Pollution Abatement Plan which incorporates the area to be disturbed.

If you have any questions, related to the permit application or Pollution Abatement Plan, please contact us at your convenience.

Sincerely,

McFadden Engineering, Inc.

Brad Newton, P.E.

Enclosures: ADEM Form 315
Pollution Abatement Plan



POLLUTION ABATEMENT PREVENTION PLAN AND RECLAMATION PLAN

For

**HATTER TENANTS IN COMMON DIRT PIT
SECTION 4, TOWNSHIP 2 SOUTH, RANGE 1 WEST
MOBILE COUNTY, ALABAMA**

Prepared For:

Hatter Tenants in Common

c/o Larson & McGowin, Inc.

P.O. Box 2143

Mobile, Alabama 36652



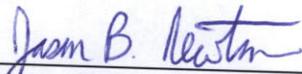
May 2015

**POLLUTION ABATEMENT PREVENTION PLAN
AND RECLAMATION PLAN
FOR
HATTER TENANTS IN COMMON DIRT PIT
SECTION 4, TOWNSHIP 2S, RANGE 1W
MOBILE COUNTY, ALABAMA**

May 2015

Prepared for:
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c/o Larson & McGowin, Inc.
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Prepared by:



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1.0 INTRODUCTION

This Pollution Abatement and Prevention Plan is required as part of a renewal application for an National Pollutant Discharge Elimination System (NPDES) permit for Hatter Tenants in Common Dirt Pit. The permit number for the facility is AL0068250. The facility is located in Section 4, Township 2 South, Range 1 West, Mobile County, Alabama. This plan is being prepared in accordance with the rules and regulations of the Alabama Department of Environmental Management (ADEM). A thorough review of field conditions which includes a review of topographic maps, review of regional geology, and drainage patterns has been conducted.

2.0 OPERATOR

The operator of this facility is as follows:

Hatter Tenants in Common
c/o Larson & McGowin, Inc.
P.O. Box 2143
Mobile, Alabama 36652

The six (6) acre dirt pit is located within the property boundary as described below:

Partly within the SW ¼ of the SE ¼ and the SE ¼ of the SE ¼ of Section 4, Township 2 South, Range 1 West in Mobile County, Alabama. The general location of the site is depicted in the Vicinity Map as shown in Figure 1.

Figure 1: Site Vicinity Map
Source: MapQuest



3.0 GENERAL INFORMATION

The permit will be for 6 acres of disturbance on the property. The proposed mining activities for the area will disturb approximately 6 acres, more or less. The operation includes the excavation, loading, and hauling of material from the site to be used as construction fill.

The material is estimated to 70% sand gravel and 30% common clay. The material is excavated by backhoes, front end loaders, and other similar equipment. The material is then loaded onto trucks and removed from the site. The borrow pit operations do not include any mineral mining or preparation activities including screening and washing of the material. The borrow pit operates intermittently, depending on local need and other market conditions.

There are no fuel storage tanks located at the facility. Fuel for loading equipment is provided by portable tanks on trucks. Hauling equipment is fueled and serviced off site.

Stormwater runoff from the drainage area and the pit intermingles prior to leaving the site. In most instances, the runoff is contained in a detention area and there is no discharge to the surrounding area. Runoff is kept on the site using swales and berms and is directed to a detention area on the north side of the pit. A control structure allows for settlement of solids prior to discharge of runoff from the site to a natural drainage-way leading to Sawmill Creek.

The permitted discharge location (002E) for the area of disturbance, outlined in this renewal permit application is the discharge location for any discharge from the dirt pit facility. This location was listed as 002P in the previous application. No construction (i.e. excavation, surface mining, etc.) activities have occurred at this facility since the previous permit was issued in 2009. The sedimentation basin and control structure for the new discharge will be constructed under this permit when mining and excavation activities begin on the property.

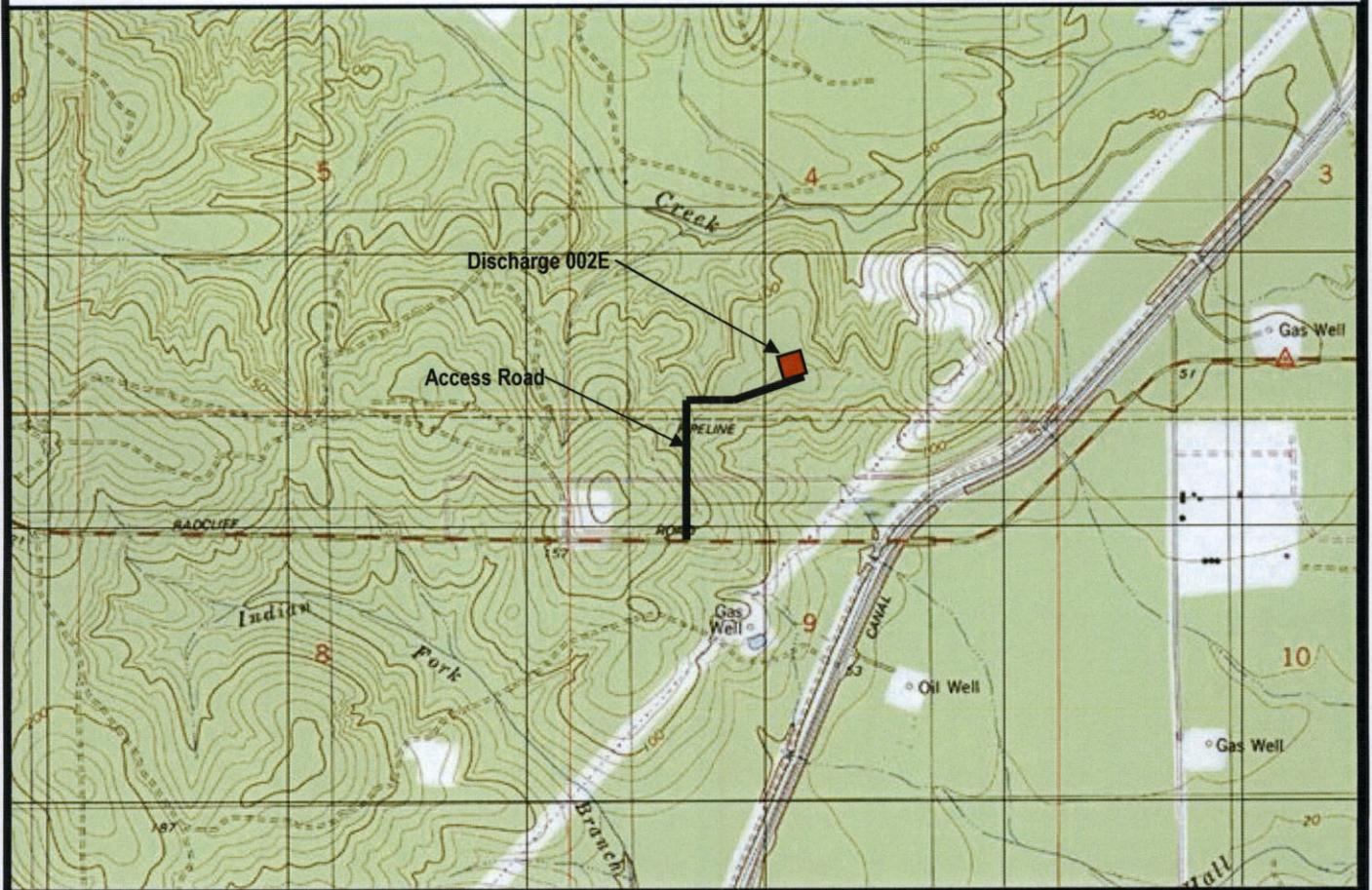
4.0 TOPOGRAPHY

The site is completely located within the "Creola" Quadrangle 7.5 Minute Series Map. Figure 2 is a copy of the quadrangle map for the site. A site drainage map showing the existing topography is provided in Figure 3. Proposed modifications to the topography, areas of excavation, access/haul roads, drainage diversionary structures, sedimentation structures, and the discharge point is provided as Figure 4.

5.0 METHODS OF DIVERTING SURFACE WATER RUNOFF

The site drainage plan shows topography and all diversionary and sedimentation control structures. Drainage from all stockpile areas, excavation areas, loading areas, equipment storage areas, and any other areas of disturbance related to the mining site is directed to the sedimentation basins prior to discharge.

Any minor areas of disturbance for which drainage cannot be feasibly routed to the settlement pond area, will be graded and vegetated with annual and perennial grasses and will have effective Best Management Practices (BMPs) for the control of non-point source pollution fully implemented and maintained at all times.



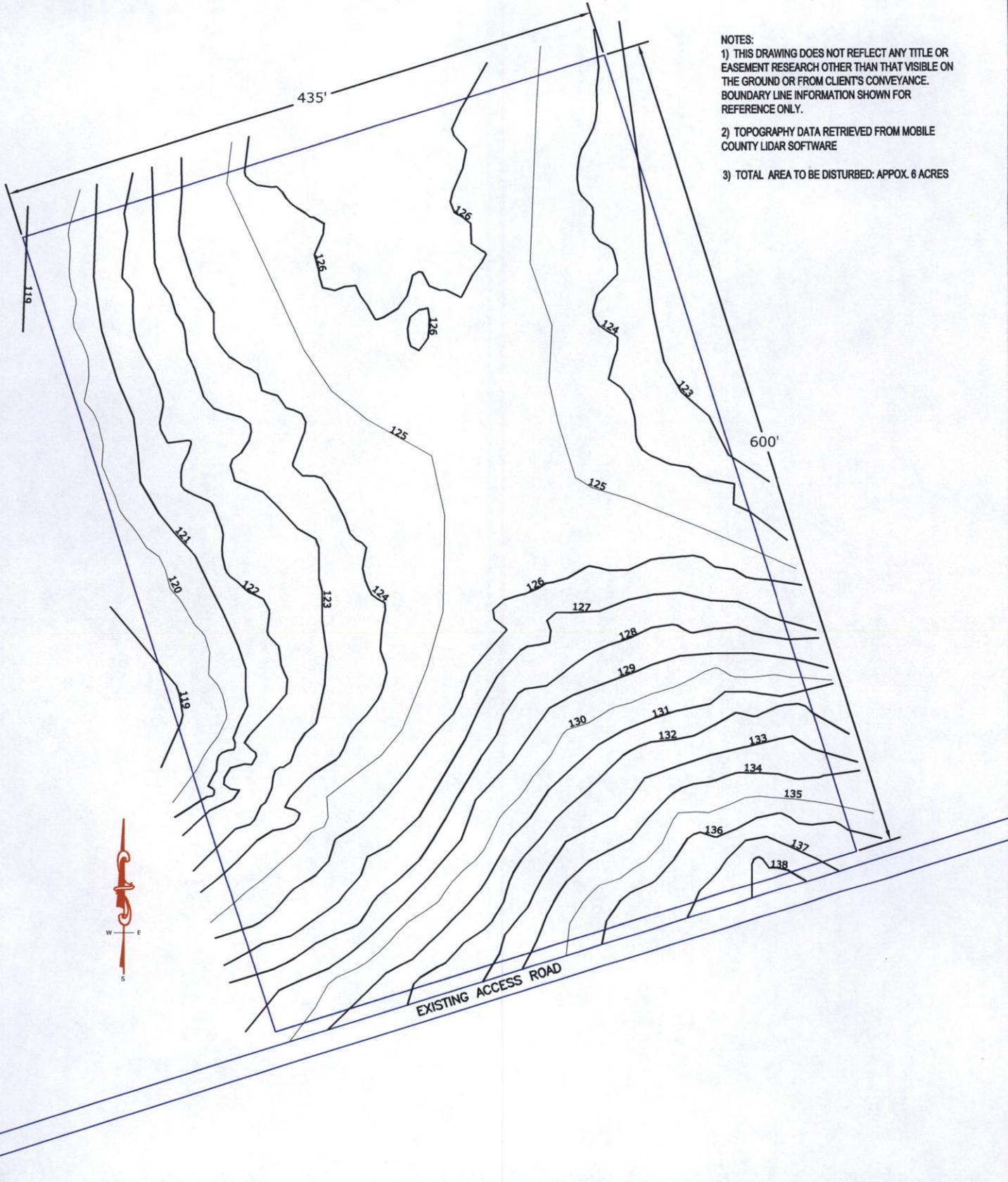
Scale - 1:24,000
 Map Source: Maptech Terrain Navigator Pro
 Extracted from 7.5 Minute Quadrangle Map for "Creola", Alabama

Pollution Abatement Plan
 Hatter Tenants in Common
 Section 4, T2S, R1W
 Mobile County, Alabama



FIGURE 2
 Hatter Tenants in Common
 Dirt Pit Site Map

- NOTES:
- 1) THIS DRAWING DOES NOT REFLECT ANY TITLE OR EASEMENT RESEARCH OTHER THAN THAT VISIBLE ON THE GROUND OR FROM CLIENT'S CONVEYANCE. BOUNDARY LINE INFORMATION SHOWN FOR REFERENCE ONLY.
 - 2) TOPOGRAPHY DATA RETRIEVED FROM MOBILE COUNTY LIDAR SOFTWARE
 - 3) TOTAL AREA TO BE DISTURBED: APOX. 6 ACRES

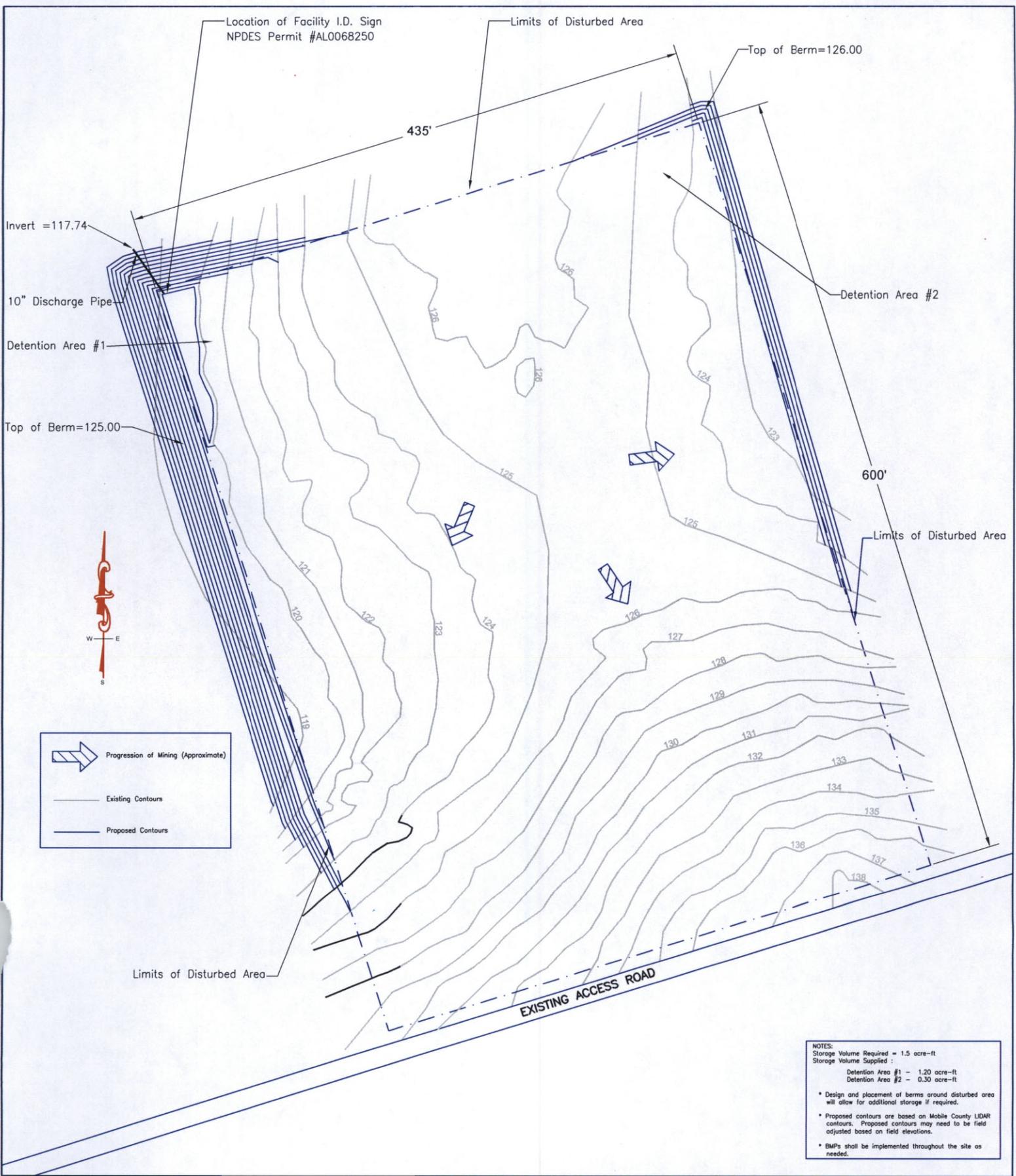


SEAL:



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DESIGNED BY: JBN	PROJECT NAME: FIGURE 3 - EXISTING TOPOGRAPHY LARSON & MCGOWIN, INC. HATTER TENANTS IN COMMON DIRT PIT	
DRAWN BY: CCW	PROJECT No. LMI000	CADD NAME: C:/PROJECTS/LMI###/LMI000/LMI Drainage Data
CHECKED BY: JBN	SCALE: 8.5X11 1" = 100'	SHEET: 1 OF 1
APPROVED BY: JBN	REVISION:	DATE: 3-10-09



NOTES:
 Storage Volume Required = 1.5 acre-ft
 Storage Volume Supplied :
 Detention Area #1 - 1.20 acre-ft
 Detention Area #2 - 0.30 acre-ft

- * Design and placement of berms around disturbed area will allow for additional storage if required.
- * Proposed contours are based on Mobile County LIDAR contours. Proposed contours may need to be field adjusted based on field elevations.
- * BMPs shall be implemented throughout the site as needed.

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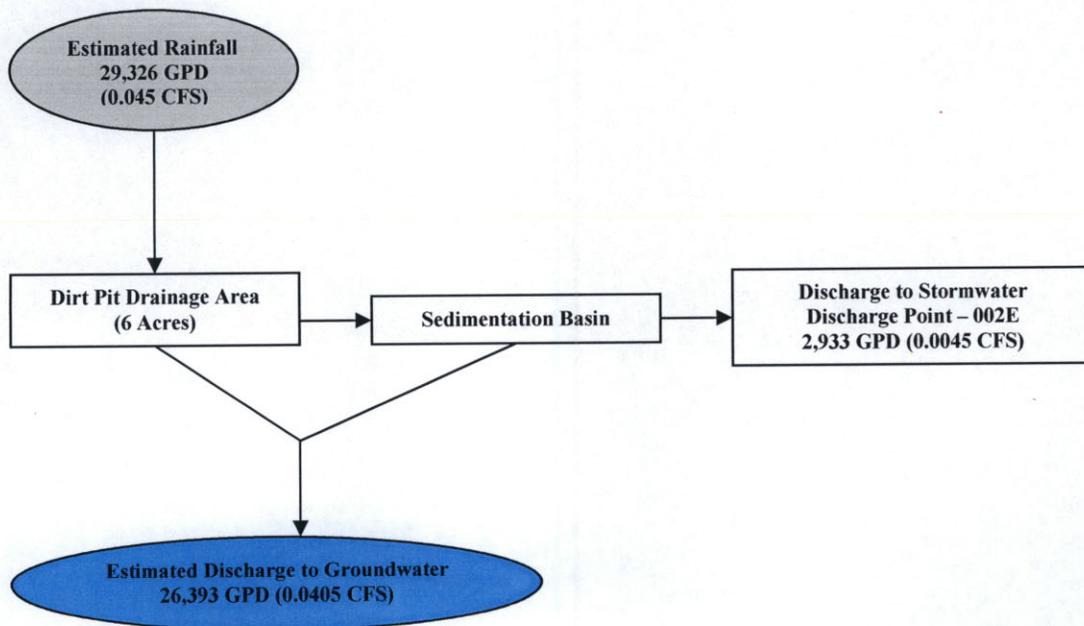
DESIGNED BY: JBN	PROJECT NAME: FIGURE 4 - SITE DRAINAGE PLAN LARSON & MCGOWIN, INC. HATTER TENANTS IN COMMON DIRT PIT	
DRAWN BY: CCW	PROJECT No. LMI000	CADD NAME: C:/PROJECTS/LMI###/LMI000/LMI Drainage Data
CHECKED BY: JBN	SCALE: 8.5X11 1" = 100'	SHEET: 1 OF 1
APPROVED BY: JBN	REVISION:	DATE: 3-10-09

6.0 RAW MATERIALS, PROCESSES, AND PRODUCTS

The only material that is mined is sand/clay used for road construction, site preparation, and related activities. There are no mineral preparations, washing, or other processes used at the pit, which would generate wastewater flows other than stormwater. There will be no flocculants, coagulants, or floatants used in the treatment operations.

7.0 SCHEMATIC DIAGRAM OF DISCHARGE

The only “process” which results in a regulated discharge is rainfall, which generates stormwater within the pit mining area. The largest portion of the stormwater runoff generated from the drainage area infiltrates to groundwater, with the remainder primarily leaving the site (after passing through the sedimentation basin) as runoff. [Note: A portion of the rainfall falling on the site is also lost as evapotranspiration, but it is considered negligible]. Based on an average 65 inches annual rainfall, a drainage area of 6 acres, and a composite runoff coefficient of 0.10, a schematic representation is depicted below:



8.0 POST TREATMENT QUANTITY AND QUALITY OF EFFLUENT

Stormwater runoff will be conveyed from the pit, excavation areas, interior haul roads, and adjacent upland areas to detention basins (see Figure 4). Approximately 80% of the site drains toward detention area # 1, with the remainder being routed to detention area # 2. The local drainage that is routed to detention area # 2, leaves the site via infiltration to groundwater or evapotranspiration. Runoff calculations have been provided as part of this plan to determine flow and size of the discharge control structure. Runoff will be discharged, after settlement of solids is provided, through a single control structure to a natural overland conveyance leading to Sawmill Creek. Construction details of the basins and control structure are shown on drawings in Appendix A.

Stormwater which collects in the pit area will temporarily suspend soil particles; however, such suspended solids will be mostly deposited in the sedimentation basin and/or will be filtered by natural processes during infiltration. Concentrations of iron and other metals, conventional pollutants such BOD, and the pH range would not be expected to be materially altered by the mining activities.

In order to provide “Best Professional Estimates” of pollutant loadings potentially associated with such discharge, the following conditions and assumptions have been used:

Rainfall = 67,000 GPD
 Drainage Area = 13.9 acres
 Runoff coefficient = 0.10 (Sandy soil, Flat to Average slope +/- 2%)
 Calculated discharge = 6700 GPD (0.010 CFS)
 Estimated BOD = 5 mg/l
 Estimated TSS = 35mg/l
 Estimated Total Iron = 3.5mg/l
 Estimated Total Manganese = 2.5 mg/l
 Calculated Loadings (rounded)
 BOD = 0.28 lbs/day
 TSS = 2 lbs/day
 Total Iron = 0.2 lbs/day
 Total Manganese = 0.14 lbs/day

Removal of settled solids from the basin should be accomplished when sediment accumulation reaches 60% of the design capacity. The detention basins will be monitored to provide periodic removal of sediment when solids have accumulated to the 60% level.

9.0 WASTE TREATMENT FACILITIES

The primary method for treatment for the removal of the expected pollutants is gravity settling. The treatment basins at a minimum are designed to provide 0.25 acre-feet of storage for every acre of disturbed land draining to the pond. Retention area # 1 is sized to handle 1.2 acre-feet of storage while detention area # 2 is sized to handle 0.3 acre-feet of storage.

The proposed basin was designed for runoff from the 6 acre disturbed area. If additional disturbed area is permitted in the future, additional sedimentation capacity will be required and will be provided by constructing intermediate detention areas on the property as needed. The only active discharge point for the facility will be the 002E, which allows the release of stormwater from the site. All trees, brush, boulders and other objects that would impair compaction will be removed from the pond area prior to construction.

The proposed spill pipe for retention area # 1 is designed to handle sufficient capacity for more than the required design parameter (one-year frequency storm event) A splash pad constructed of riprap will be installed at the discharge pipe to protect against erosion from the discharge, and the inlet standpipe will be modified for subsurface withdrawal. The emergency spillway is sized for the peak flow from a 50-year, 24-hour (or shorter) storm event. The emergency overflow will be at least 20 feet long and lined with riprap, and the side slopes will be no steeper than 2:1. There will be at least 1.5 feet of freeboard between the maximum design flow of the emergency spillway and the top of the dam. The sedimentation basin will be maintained until mining has

ceased and the site is completely reclaimed, and the operator has received written permission from ADEM to remove the basin control structure.

10.0 SEDIMENT CONTROL FOR HAUL ROADS

Access to the borrow pit area is along a gravel and dirt road leading from Radcliff Road to the south. The entry to the pit area will be on the southern side of the property. Haul roads to various excavation and loading areas lie totally within the pit drainage area leading to the sedimentation basin. If it becomes impractical to divert minor areas of runoff along haul roads to the pit, then effective BMP's shall be implemented and maintained to control erosion and minimize potential sediment transportation. In order to minimize sediment from haul roads the following measures should be implemented for any future haul road construction (as per ADEM Surface Mining Rules Chapter 335-6-9, Appendix B):

- Sustained grades on roads should not exceed 10 percent.
- The maximum grade should not exceed 15 percent for 300 feet.
- There should not be more than 300 feet of 15 percent maximum grade for each 1,000 feet of road constructed.
- Outer slopes for the haul roads out of the permitted area should not be steeper than 2:1 and should be seeded with annual and perennial grasses with at a minimum 80percent cover to prevent erosion.
- Stream crossings should be avoided if at all possible.

11.0 STREAMS ADJACENT TO MINING AREA

The site vicinity map (Figure 2) shows all water bodies in the vicinity of the pit. The pit discharge (002E) is located about 1000 feet from Sawmill Creek. Sawmill Creek joins with Reedy Branch at Hatters Pond to form Gunnison Creek, a tributary to the Mobile River.

12.0 NON-POINT SOURCE POLLUTION

Since virtually all disturbed areas will be graded such that the drainage will carry suspended sediments to the basin, non-point sources of pollution do not result from this project. As noted previously, appropriated BMPs will be implemented and maintained if it becomes infeasible to divert stormwater from minor disturbance areas to the pit.

13.0 PUBLIC WATER SUPPLY IMPOUNDMENT

The receiving stream (Sawmill Creek) is not classified as a Public Water Supply and is not located in a public water supply watershed.

14.0 SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

There are no bulk storage tanks for petroleum products planned to be used at this facility; therefore, a Spill Prevention Control & Countermeasure (SPCC) plan is not required. Petroleum products may be brought onto the site in portable, small-quantity capacities for equipment fueling and maintenance. Therefore, spill control BMPs shall be utilized as applicable. These may include structural and/or non-structural spill prevention, control, and/or response measures

sufficient to control or mitigate any spills of pollutants from entering waters of the State. Spill control BMPs may include:

- Maintain onsite (or have readily available) sufficient absorbing material and/or flotation booms to contain and clean-up fuel or chemical spills and leaks.
- All on-site vehicles and equipment should be monitored for leaks and receive regular preventative maintenance to reduce leakage.
- Care should be taken to prevent overfilling and spillage during on-site fueling activities.
- Petroleum products, chemicals, paints, etc. should be stored in clearly labeled and tightly sealed containers.
- All spills of chemicals, paints, petroleum products, etc. must be cleaned up immediately after discovery and disposed of in accordance with applicable environmental regulations. If a spill occurs, notification to regulatory agencies may be required.

In most situations, structural spill prevention controls (when applicable) will require the construction or use of a secondary containment system. Any containment system used to implement this requirement shall be:

1. Constructed of material compatible with the substance(s) contained,
2. Shall be sufficiently impervious to prevent the contamination of groundwater, and
3. Shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

The Permittee shall prepare, implement, and maintain a SPCC Plan if the cumulative storage of fuel or other oils at the facility are greater than 1320 gallons, or if any single container has a capacity greater than 660 gallons. A Professional Engineer must certify the SPCC Plan and the plan must be consistent with the requirements of 40 CFR 112.

15.0 RUNOFF CALCULATIONS

Runoff for the disturbed area at the dirt pit has been estimated using the Rational Method to determine the stormwater flow expected during typical design storm events. First, the time of concentration (T_c), which is generally defined as the time required for water to travel from the most hydrologically remote point in the drainage basin to the point of collection, had to be calculated. The FAA equation was used to calculate the T_c for this application. The equation is as follows:

$$\text{FAA equation: } T_c = G (1.1 - c) L^{0.5} / (100 S)^{1/3}$$

Where:

- T_c = time of concentration (minutes)
- C = runoff coefficient (0.10 for sand soil with flat to average slopes)
- L = average length of overland flow
- S = slope (ft/ft)

The FAA (U.S. Federal Aviation Administration) equation is the most commonly used equation for this calculation because it uses the widely recognized Rational Coefficient to describe watershed ground cover. From this equation, the T_c was calculated to be 33 minutes for the local drainage basin around the proposed disturbed area.

The design storm used for the runoff calculation was the 10-year storm event. Rainfall intensity for a 10-year storm event using Mobile County, Alabama intensity-duration-frequency curves for historical rainfall events was determined to be approximately 4.75 in/hr. For the 10-year storm event the flow seen would be 2.85 cfs. As discussed earlier, because this will primarily be a self contained dirt pit, runoff will typically not be discharged from the disturbed areas of the site. However, a discharge structure consisting of a discharge pipe and overflow weir which will serve as the outlet to the sedimentation pond need to be constructed. This will allow proper treatment of the stormwater in the sedimentation area prior to release in the event that a discharge is required.

The discharge pipe size can be determined using Manning's Equation. Manning's Equation is as follows:

$$Q = \frac{k}{n} \cdot A \cdot R^{2/3} \cdot S^{1/2}$$

Where:	Q	=	Flow (cfs)
	k	=	Constant (1.49 ft. ^{1/3} /sec.)
	n	=	Manning's roughness (unitless)
	A	=	Flow area (ft. ²)
	R	=	Hydraulic radius (ft.)
	S	=	Friction slope (ft./ft.)

From this equation, the required pipe size for discharge of a 10-year storm event was calculated to be 10 inches. The discharge pipe will be PVC and will allow the discharge of runoff after treatment in the sedimentation/detention area.

Using the flow from an extreme storm event, an overflow weir has been designed. The 50-year storm event was selected as the design storm for the overflow weir. The weir equation is as follows:

$$Q = 3.33 (L - 0.2(H)) (H)^{1.5}$$

Where:	Q	=	Flow (cfs)
	L	=	Length of weir (ft)
	H	=	head over weir (ft)

From this equation the weir length was calculated to be 12 feet, however a 20ft weir length will be implemented as per requirements. A copy of all calculations for the rainfall estimates and discharge structures can be found in Appendix B.

16.0 RECLAMATION PLAN

Upon completion and cessation of the proposed mining activities, the disturbed areas will be seeded with native grasses and legumes, and (optionally) planted with pine tree seedlings. The area will be graded to allow runoff to continue the natural drainage pattern of Sawmill Creek. The drainage structure will remain in place to prevent stormwater pollution until the disturbed areas are covered with vegetation.

The reclamation procedures will meet requirements of the Alabama Surface Mining Act of 1969, as amended by Act 99-579, and as regulated under permits reviewed and renewed annually by the Alabama Department of Industrial Regulations (ADIR). Reclamation procedures will commence along with ongoing mining activities. Once all mining activities are completed in a portion of the total area to be mined, the area should be reclaimed.

A minimum 50-foot setback (undisturbed buffer strip) will be maintained between surface mining areas and areas which could be adversely affected by mining (watercourses, adjoining properties, or other features, as applicable). The setback shall have lateral support graded to a 3:1 slope or flatter, stabilized, mulched, fertilized, and planted in native grasses and legumes.

Highwalls (uphill side of excavation) require grading and/or backfilling to a 3:1 or flatter slope, and shall be provided soil stabilization and/or drainage control as necessary for protection.

During reclamation, all disturbed areas will be revegetated by applying lime and/or fertilizer, as recommended by a comprehensive soil analysis, then mulched and seeded with permanent native grasses and legumes to achieve a minimum 75% vegetative cover.

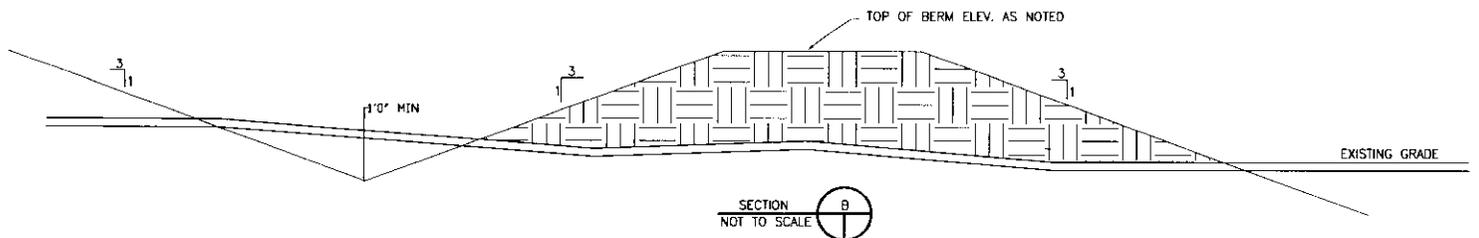
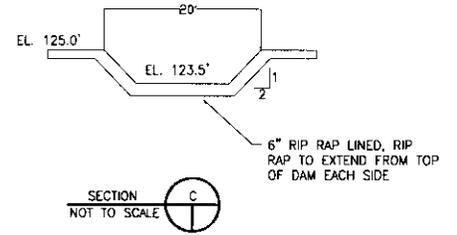
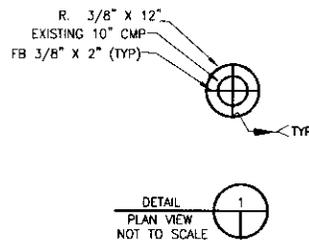
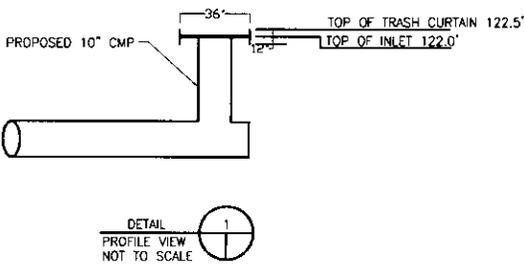
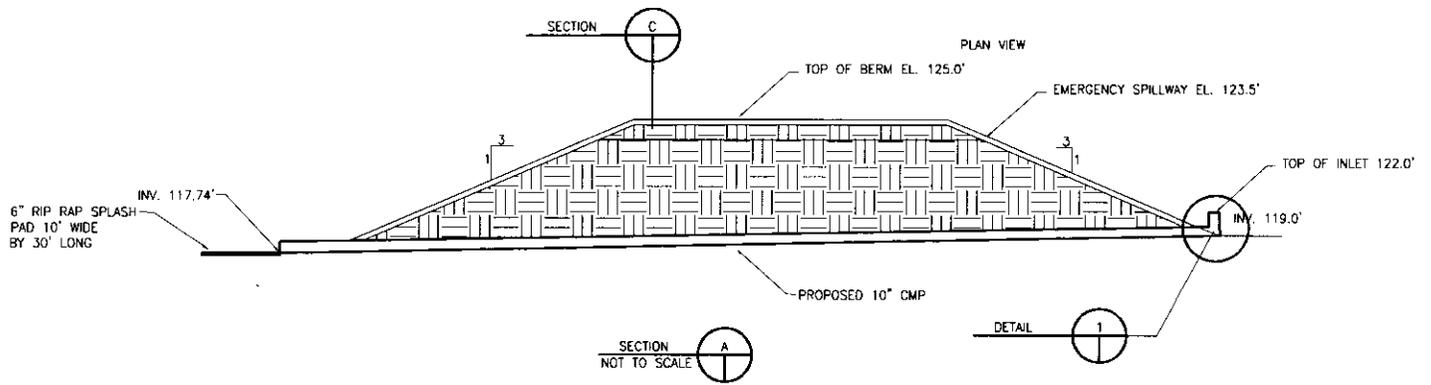
Reclamation of affected land will be completed within two (2) years from the date of expiration of the ADIR permit.

17.0 TYPICAL BEST MANAGEMENT PRACTICES

Attached as Appendix C are erosion control and sediment control design and maintenance measures for typical BMPs that may need to be employed, as appropriate, during typical operation of the facility.

Appendix A

Construction Details of Basin and Control Structures



SEAL:



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DESIGNED BY: JBN	PROJECT NAME: FIGURE 5-BERM & DISCHARGE DETAILS LARSON & MCGOWIN, INC. HALTERS TENANTS IN COMMON DIRT PIT	
DRAWN BY: CCW & MAP	PROJECT No. LMI000	CADD NAME: C:/PROJECTS/LMI000/BERM & DISCHARGE DETAILS
CHECKED BY: JBN	SCALE: NOT TO SCALE	SHEET: 1 OF 1
APPROVED BY: JBN	REVISION:	DATE: 3-16-09

Appendix B

Rainfall Runoff and Discharge Structure Calculations



McFadden Engineering

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Client: LMI - HATTAS TENANTS IN COMMON DIRT PLOT Date: 3/11/09

Project: RAINFALL ESTIMATES Sheet: 1 of 1

RAINFALL = 65 IN/YEAR (AVERAGE)

DRAINAGE AREA = 6 ACRES

RUNOFF COEFFICIENT = 0.10

CONVERT RAINFALL TO FT/DAYS

$$65 \frac{\text{IN}}{\text{YR}} \times \left(\frac{1 \text{ YR}}{365 \text{ DAYS}} \right) \times \left(\frac{1 \text{ FT}}{12 \text{ IN}} \right) = 0.015 \text{ FT/DAY}$$

CONVERT DRAINAGE AREA TO FT²

$$6 \text{ ACRES} = 261,360 \text{ FT}^2$$

CALCULATE FLOW FROM RAINFALL AS GAL/DAY:

$$261,360 \text{ FT}^2 \times \left(\frac{0.015 \text{ FT}}{\text{DAY}} \right) = \frac{3920.4 \text{ FT}^3}{\text{DAY}} \times \left(\frac{7.48 \text{ GAL}}{1 \text{ FT}^3} \right) = 29,326 \text{ GAL/DAY}$$

RAINFALL

$$29,326 \frac{\text{GAL}}{\text{DAY}} \times \frac{1 \text{ DAY}}{24 \text{ HRS}} \times \frac{1 \text{ HR}}{60 \text{ MIN}} \times \frac{1 \text{ MIN}}{60 \text{ SEC}} \times \frac{1 \text{ FT}^3}{7.48 \text{ GAL}} = 0.045 \text{ CFS}$$



McFadden Engineering

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nt: LME - HAITER TENANTS IN COMMON DIRT PIT

Date: 3/12/09

ect: DRAINAGE CALCULATIONS WITH DISCHARGE PIPE

Sheet: 1 of 2

DETERMINE SPEC PIPE SIZE FOR SEDIMENTATION POND:

TIME OF CONCENTRATION:

$$T = \frac{[1.8 \times (1.1 - C) \times L^{1/2}]}{(S \times 100)^{2/3}}$$

WHERE C = 0.10 (SANDY SOIL, FLAT TO AVERAGE SLOPE)

L = 650, LENGTH OF OVERLAND FLOW

S = 0.026 FT/FT SLOPE

$$T_0 = \frac{[1.8 \times (1.1 - 0.10) \times (650)^{1/2}]}{(0.026 \times 100)^{2/3}} = \frac{45.891}{1.375}$$

$$= 33.4 \text{ MIN}$$

RAINFALL INTENSITY:

$$I = 4.75 \text{ IN/HR} \quad \text{MOBILE COUNTY RAINFALL INTENSITY CHART (T = 33 MIN + 10-YR STORM)}$$

PIPE CALCULATIONS:

USE RATIONAL METHOD TO DETERMINE FLOW

Q = FLOW (CFS)

C = 0.10, RUNOFF COEFFICIENT

I = 4.75 IN/HR, RAINFALL INTENSITY

A = 6 ACRES

$$Q = CIA$$

$$= (0.10)(4.75)(6.0)$$

$$= 2.85 \text{ CFS}$$

SIZE PROPOSED PIPE USING MANNING'S EQUATION:

$$Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$$

$$2.85 = Q = \frac{1.49}{0.014} \pi \left(\frac{D}{2}\right)^2 [0.25 D]^{2/3} (0.030)^{1/2}$$

$$2.85 = 106.43 (\pi)(0.25) D^2 (0.397) D^{2/3} (0.173)$$

$$2.85 = 5.74 D^{8/3}$$

$$0.496 = D^{8/3}$$

$$D = (0.496)^{3/8}$$

$$D = 0.768' \quad \text{USE A MINIMUM OF 10" PIPE}$$

WHERE: n: MANNING'S COEFFICIENT

A: C/S AREA

$$R: \text{HYDRAULIC RADIUS} = \frac{A}{P} = \frac{(\pi D^2/4)}{\pi D} = 0.25 D$$

S: SLOPE OF PIPE (FT/FT)

10" PVC DISCHARGE PIPE



Client: LMI - HATTER TENANTS IN COMMON DIRT PIT

Date: 3/13/09

Project: DRAINAGE CALCS, DISCHARGE PIPE, EMERGENCY SPOUWAY

Sheet: 2 of 2

EMERGENCY SPOUWAY CALCULATIONS:

TIME OF CONCENTRATION = 33 MINUTES

RAINFALL INTENSITY FOR 50-YR STORM EVENT = .575 IN/HR

OVERFLOW CALCULATIONS

$$Q = CIA$$

$$Q = (0.10)(5.75)(6)$$

$$Q = 3.45 \text{ cfs}$$

SPOUWAY DESIGN (ASSUME 12 FT WIDE RECTANGULAR WEIR WITH END CONTRACTIONS)

$$Q = 3.33 * (12 - 0.2(H)) * H^{1.5}$$

USE AN H = 0.25 FT

$$Q = 3.33(12 - 0.2(0.25))(0.25)^{1.5}$$

$$Q = 4.97 \text{ cfs}$$

TRY 10 FT WIDE WEIR

$$Q = 3.33 * (10 - 0.2(H)) * H^{1.5}$$

USE AN H = 0.25 FT

$$Q = (3.33)(10 - 0.2(0.25))(0.25)^{1.5} = 4.16 \text{ cfs} \text{ *NOT OK*}$$

USE 12' WIDE WEIR

Appendix C

Best Management and Erosion Control Measures

Surface Roughening

Surface roughening is a temporary erosion control practice. The soil surface is roughened by the creation of horizontal grooves, depressions, or steps that run parallel to the contour of the land. Slopes that are not fine-graded and that are left in a roughened condition can also control erosion. Surface roughening reduces the speed of runoff, increases infiltration, and traps sediment. Surface roughening also helps establish vegetative cover by reducing runoff velocity and giving seed an opportunity to take hold and grow. Surface roughening is appropriate for all slopes. To slow erosion, roughening should be done soon after the vegetation has been disturbed. Roughening can be used with both seeding and planting and temporary mulching to stabilize an area. For steeper slopes and slopes that will be left roughened for extended periods of time, a combination of surface roughening and vegetation is necessary. Surface roughening should be performed immediately after grading activities have ceased (temporarily or permanently) in an area of disturbance.

There are different methods for achieving a roughened soil surface on a slope. The selection of an appropriate method depends on the type of slope and the available equipment. Roughening methods include stair-step grading, grooving, and tracking. Factors to consider when choosing a method are slope steepness, mowing requirements, whether the slope is formed by cutting or filling, and available equipment. The following methods can be used for surface roughening (all slopes described are H:V):

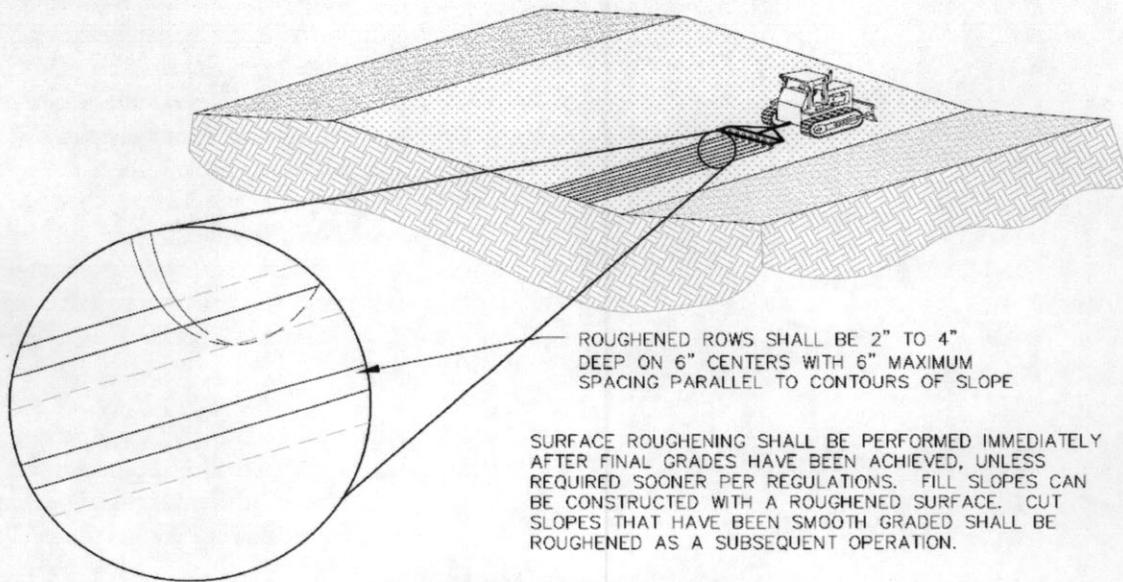
- **Cut Slope Roughening for Areas that will not be Mowed:** Stair-step grades or groove-cut slopes should be used for gradients steeper than 3:1. Stair-step grading should be used on any erodible material that is soft enough to be ripped with a bulldozer. Slopes consisting of soft rock with some subsoil are particularly suited to stair-step grading. The vertical cut distance should be less than the horizontal distance, and the horizontal portion of the step should be slightly sloped toward the vertical wall. Individual vertical cuts should not be made more than 2 feet deep in soft materials or more than 3 feet deep in rocky materials.
- **Grooving:** This technique uses machinery to create a series of ridges and depressions that run across the slope along the contour. Grooves should be made using any appropriate implement that can be safely operated on the slope, such as disks, tillers, spring harrows, or the teeth on a front-end loader bucket. The grooves should be made more than 3 inches deep and less than 15 inches apart.
- **Fill Slope Roughening for Areas:** Fill slopes with a gradient steeper than 3:1 should be placed in lifts less than 9 inches, and each lift should be properly compacted. The face of the slope should consist of loose, uncompacted fill 4 to 6 inches deep. Grooving should be used as described above to roughen the face of the slopes, if necessary. The final slope face should not be bladed or scraped.
- **Cuts, Fills, and Graded Areas that will be Mowed:** Mowed slopes should be made no steeper than 3:1. These areas should be roughened with shallow grooves less than 10 inches apart and more than 1 inch deep using normal tilling, disking, or harrowing equipment (a cultipacker-seeder can also be used). Excessive roughness is undesirable where mowing is planned.
- **Roughening with Tracked Machinery:** Roughening with tracked machinery should be limited to sandy soils to avoid undue compaction of the soil surface. Tracked machinery

should be operated perpendicular to the slope to leave horizontal depressions in the soil. Tracking is generally not as effective as other roughening methods.

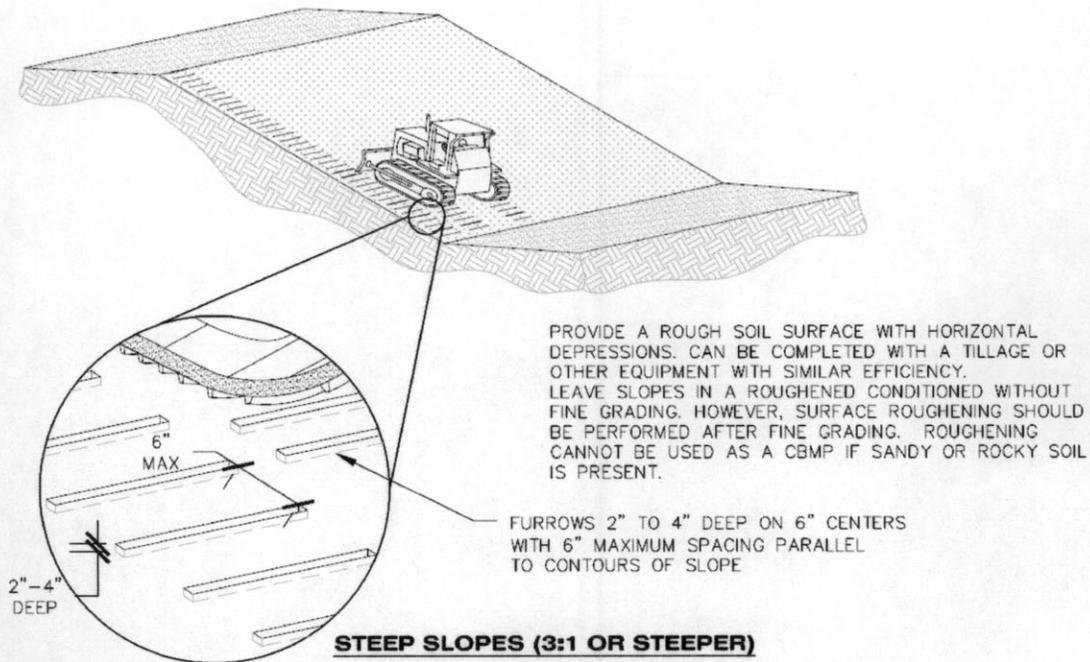
Soil roughening is not appropriate for rocky slopes. Soil compaction might occur when roughening with tracked machinery. Soil roughening is of limited effectiveness in anything more than a gentle or shallow depth rain. If roughening is washed away in a heavy storm, the surface will have to be re-roughened and new seed laid effected areas.

Areas need to be inspected after storms, since roughening might need to be repeated. Regular inspection of roughened slopes will indicate where additional erosion and sediment control measures are needed. If rills (small watercourses that have steep sides and are usually only a few inches deep) appear, they should be filled, graded again, and reseeded immediately. Proper dust control methods should be used.

Soil roughening provides moderate erosion protection for bare soils while vegetative cover is being established. It is inexpensive and simple for short-term erosion control when used with other erosion and sediment controls. Soil roughening is inexpensive with respect to cost of materials but requires the use of heavy equipment.



LESSER SLOPES (LESS THAN 3:1)



Surface Roughening General Installation Notes:

- Any disturbed land that remains inactive for more than 14 consecutive days must receive surface roughening.
- Surface roughening shall be performed perpendicular to the slope.
- Soil shall be roughened a 2"-4" deep using rigid shanks.
- For steep slopes (3:1 or greater), it is acceptable to "track" the slopes.
- Roughened areas shall be inspected at the following intervals:
 - Immediately following initial installation
 - Every 7 days during active construction
 - Immediately following any storm event.

Silt Fence

A silt fence is a temporary sediment barrier made of woven, synthetic filtration fabric supported by steel or wood posts. The purpose of silt fence is to prevent sediment carried by sheet flow from leaving the site and entering natural drainage ways by slowing stormwater runoff and causing the deposition of sediment at the structure. Silt fencing encourages sheet flow and reduces the potential for development of rills and gullies. Silt fence should be installed prior to major soil disturbance in the drainage area. The fence should be placed across the bottom of a slope along a line of uniform elevation which is perpendicular to the direction of flow. It can also be used at the outer boundary of a work area, however the fence does not have to surround the work area completely if grades allow. Silt fence is also effective where sheet and rill erosion may be a problem. Silt fences should never be installed across streams, ditches, waterways, flow paths or other concentrated flow areas. In general, the drainage area should not exceed $\frac{1}{4}$ acre for every 100 feet of silt fence.

Criteria for Silt Fence Placement

Land Slope (percent)	Maximum Slope Length Above Fence (feet)
< 2	100
2 to 5	75
5 to 10	50
10 to 20	25
>20	15

Types of silt fence are as follows:

- **Type "A" Silt Fence** – Filter fabric is 36-inches wide and is typically used on developments where the life of the disturbance is 6 months or greater.
- **Type "B" Silt Fence** – Filter fabric is 22-inches wide, but allows the same flow rate as Type "A" silt fence. Type "B" silt fence should be limited to use in areas where permanent stabilization will be achieved within 6 months of installation.
- **Type "C" Silt Fence** – Filter fabric is 36-inches wide with wire reinforcement. The wire reinforcement is necessary because this fabric allows three times the flow rate as typical Type "A" fencing.

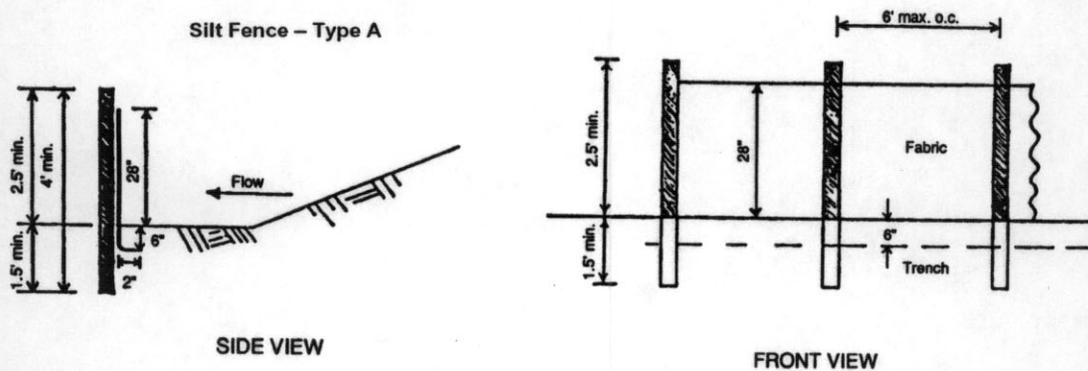
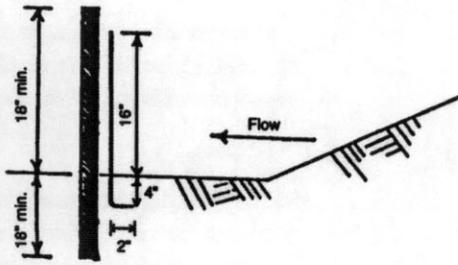
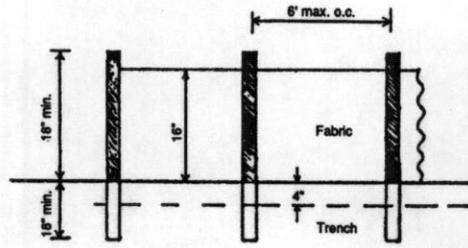


Figure 1

Silt Fence - Type B

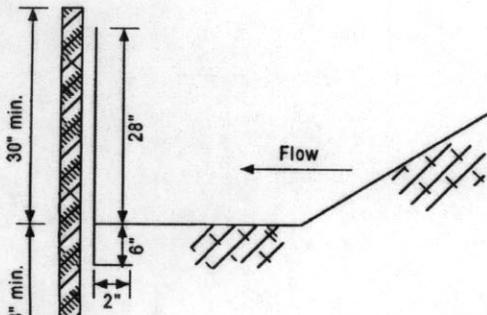


SIDE VIEW

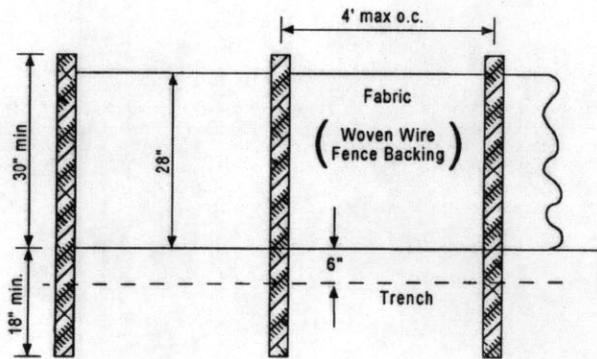


FRONT VIEW

Silt Fence - Type C



SIDE VIEW

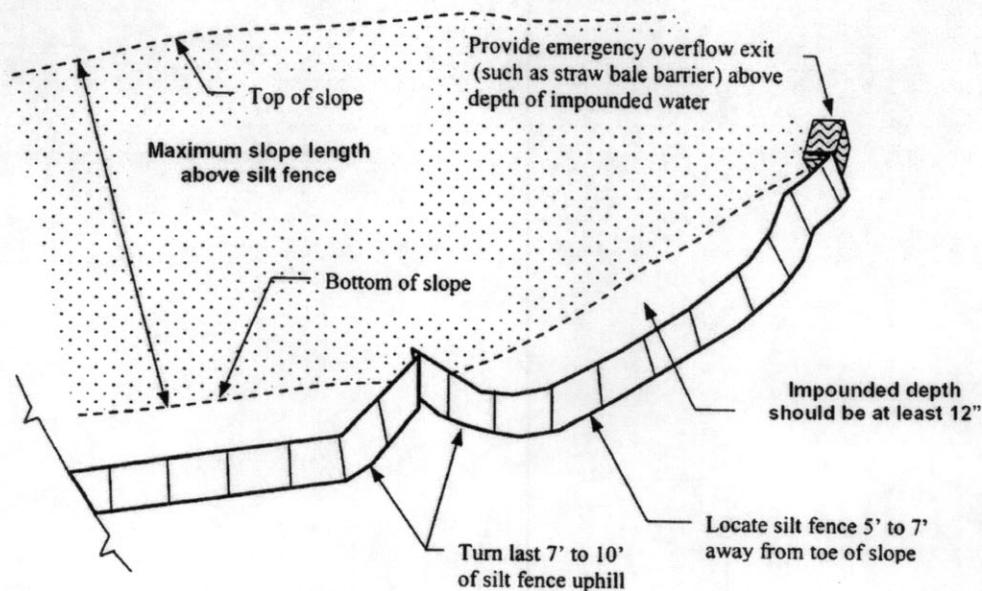


FRONT VIEW

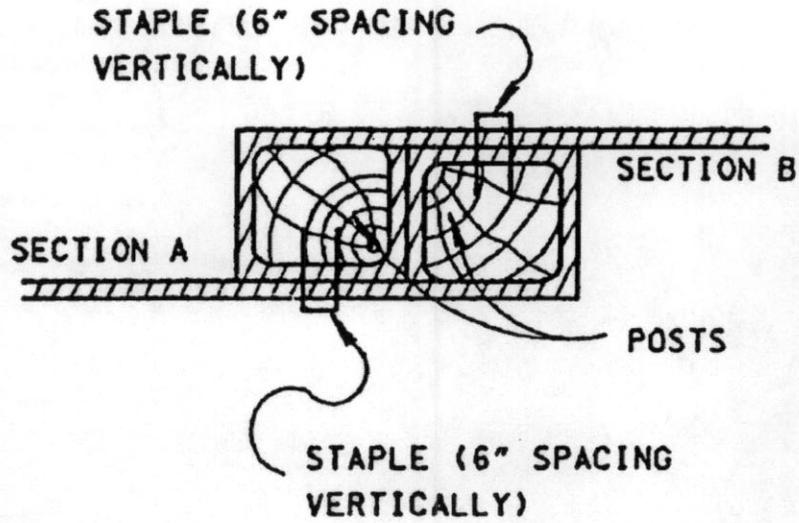
Silt Fencing General Construction Specifications:

- Silt fence should be placed on the contour.
- On slopes with grades greater than 7%, the silt fence should be located at least 5 to 7 feet beyond base.
- The ends of the silt fence should be turned upslope so that a certain depth of stormwater may be retained in front of the silt fence.
- The impounded depth should be at least 12 inches but no more than the height of the silt fence itself.
- Excavate the trench at least 6-inches below the existing grade with a bottom trench width if at least 4-inches.
- Hay or straw bales should be staked in place at the end of the row of silt fence as an emergency overflow. This will allow detained water, exceeding the capacity of the silt fence, to be filtered and released quickly.
- The bottom edge of silt fence must be entrenched and backfilled to be effective.
- When joints are unavoidable, filter cloth should be spliced together only at a supporting post, with a minimum 6-inch overlap and securely sealed.
- Trapped sediment shall be continuously removed around the silt fence.

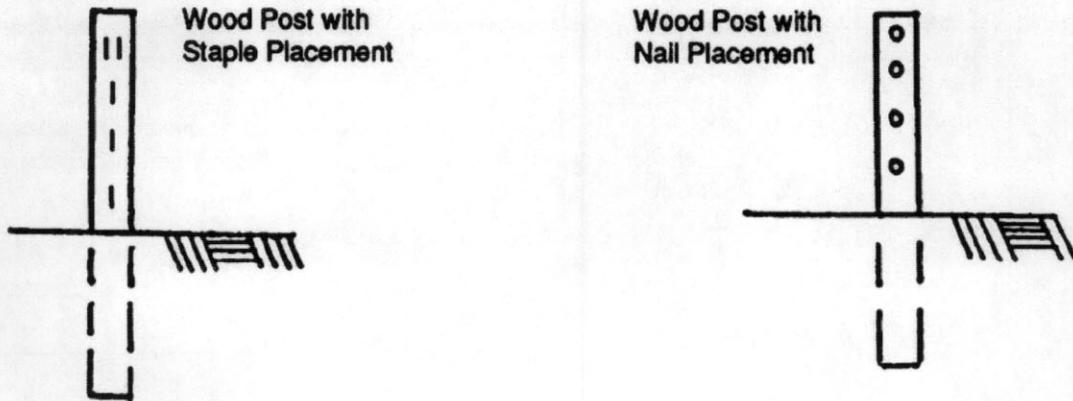
Silt Fence Below a Steep or Long Grade



Joining Silt Fence Sections



Fastener Placement



Hay and Straw Bales

Hay and straw bales are used as sediment traps which retain sediment on site by limiting and filtering storm water runoff. Straw and hay bale barriers pond sheet flow runoff allowing sediment to settle out.

Straw or hay bale barriers are suitable as a linear sediment control measure in the following situations:

- Below the toe of slopes and erodible slopes
- As sediment traps
- Below small cleared areas
- Along the perimeter of a site
- Parallel to a roadway
- Along streams and channels

Straw or hay bale barriers are suitable as a linear erosion control measure in the following situations:

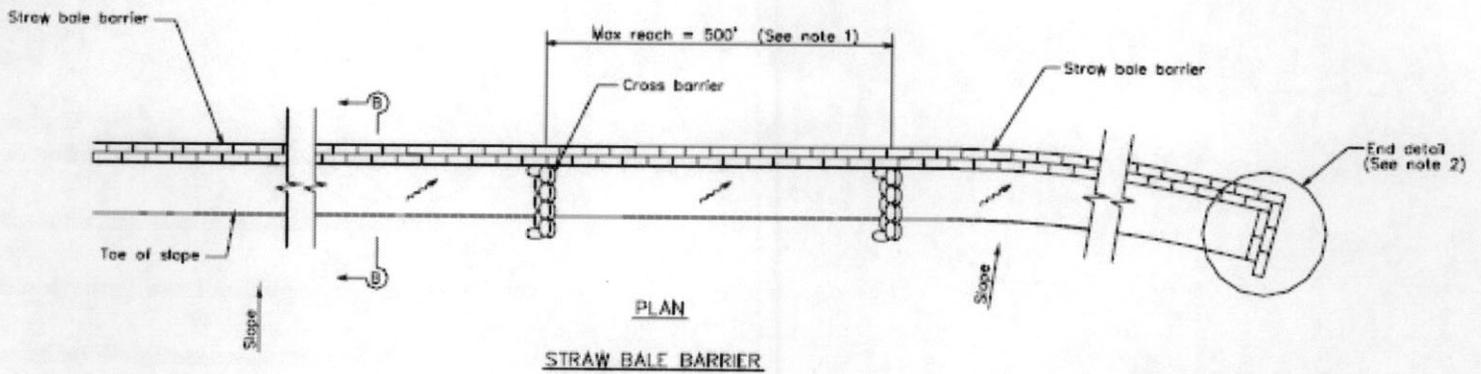
- Along the face and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow
- At the top of slopes to divert runoff away from disturbed slopes
- As check dams across mildly sloped construction roads

Limitations of straw or hay bales are as follows:

- Are not suitable for extended periods of time due to rotting or falling apart
- Are suitable only for sheet flow on slopes of 10% or flatter
- Are not appropriate for large drainage areas; usage should be limited to one acre or less
- Require constant maintenance
- Are not recommended for concentrated flows, inlet protection, or channel flow
- May introduce undesirable non-native plants to the area

Hay or Straw Bales General Construction Notes:

- Hay or straw bales should be located on a level contour. On slopes up to 10:1, bales should be placed at a minimum interval of 50 feet with the first row near the toe of the slope. Closer spacing of the bales is more effective. Installation of bales on slopes greater than 10:1 is not recommended.
- The ends of the straw bale barriers should be turned up along the slope to prevent runoff from going around the barrier.
- Allow sufficient space up slope from the barrier to allow ponding and to provide room for sediment storage.
- When bales are installed near the toe of the slope, consider moving the barrier away from the slope to facilitate cleaning.
- Criteria for installation should be 0.25 acres per 100 foot of bales installed.
- Anchor bales with either two wooden stakes or four bars driven through the bale and into the ground.

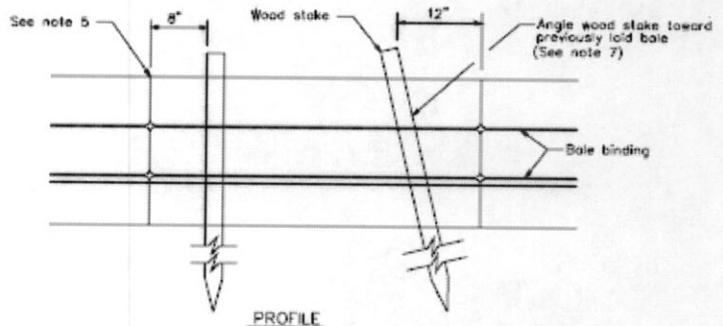
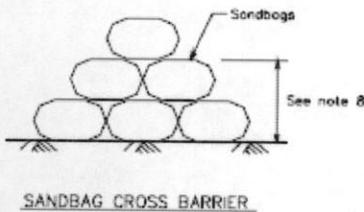
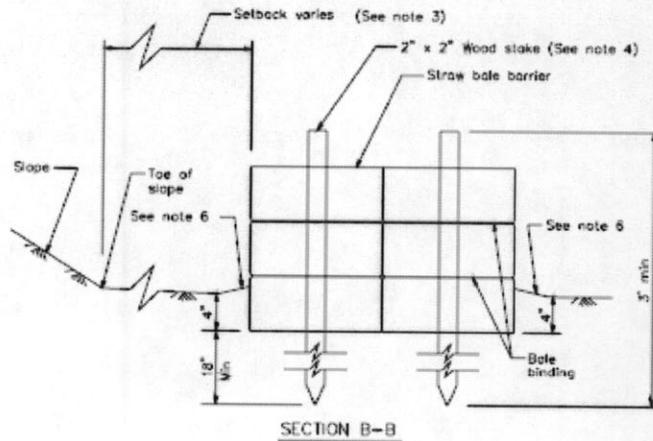
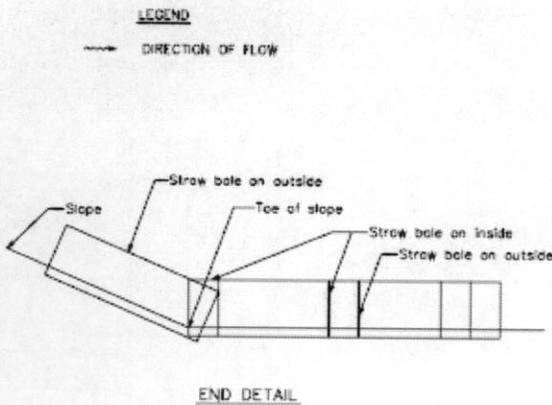


NOTES

1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/2 the height of the linear barrier. In no case shall the reach length exceed 500'.
2. The end of barrier shall be turned up slope.
3. Dimension may vary to fit field condition.
4. Stake dimensions are nominal.
5. Place straw bales tightly together.
6. Tamp embedment spoils against sides of installed bales.
7. Drive angled wood stake before vertical stake to ensure tight abutment to adjacent bale.
8. Sandbag cross barriers should be a min of 1/2 and a max of 2/3 the height of the linear barrier.
9. Sandbag rows and layers should be offset to eliminate gaps.

LEGEND

→ DIRECTION OF FLOW



Check Dams

A check dam is a small barrier or dam constructed across a swale, drainage ditch or other area of concentrated flow for the purpose of reducing channel erosion. Check dams reduce scour and channel erosion by reducing flow velocity and encouraging of rock, gravel, bags, sandbags, fiber rolls, or other proprietary product placed across a natural or man-made channel or drainage ditch.

Appropriate Application for Check Dams:

- In small open channels that drain 10 acres or less.
- In steep channels where storm water runoff velocities exceed (4.9 ft/sec).
- During the establishment of grass linings in drainage ditches or channels.
- In temporary ditches where the short length of service does not warrant establishment of erosion-resistant linings.

Limitations of Check Dams:

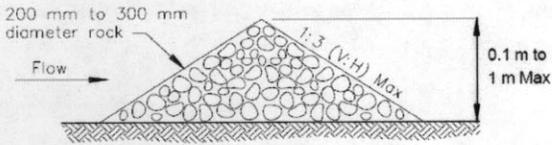
- Not to be used in live streams.
- Not appropriate in channels that drain areas greater than 10 acres.
- Not to be placed in channels that are already grass lined unless erosion is expected, as installation may damage vegetation.
- Require extensive maintenance following high velocity flows.
- Promotes sediment trapping, which can be re-suspended during subsequent storms or removal of the check dam.
- Not to be constructed from straw bales or silt fence.
- Check dams shall be placed at a distance and height to allow small pools to form behind them. Install the first check dam approximately 16 feet from the outfall device and at regular intervals based on slope gradient and soil type.
- For multiple check dam installation, backwater from downstream check dam shall reach the toe of the upstream dam.
- High flows (typically a 2-year storm or larger) shall safely flow over the check dam without an increase in upstream flooding or damage to the check dam.
- Where grass is used to line ditches, check dams shall be removed when grass has matured sufficiently to protect the ditch or swale.
- Rock shall be placed individually by hand or by mechanical methods (no dumping of rock) to achieve complete ditch or swale coverage.
- Sand bag check dams can be used as an immediate response to rill and/or gully concerns.

Maintenance and Inspection of Check Dams:

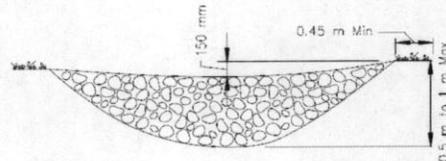
Check dams should be inspected after every storm significant rainfall event. When accumulated sediment reaches a depth one-third the height of the check dam, it must be removed.

General Construction Notes for Check Dams:

- Riprap check dams should be at least 2 feet high.
- Riprap check dams should be constructed over a geotextile or filter fabric.
- Stones should be placed on the filter by hand or with appropriate machinery. The stones should not be dumped in place.
- Line the upstream face of the riprap check dams with 3/4 inch to 1-1/4 inch size gravel at least 1 foot thick.
- When sand bags are utilized for check dams, the bags should be sealed. Do not use torn or leaking bags.
- Sand bags used for check dams should be placed by hand situated perpendicular to the flow line. Bags should be firmly placed together.
- Sand bags should extend up the side slopes so that the center of the dam is lower than the sides.
- Erosive damage to the channel downstream of the dam should be repaired as soon as possible after the occurrence. Sand bags may be used to



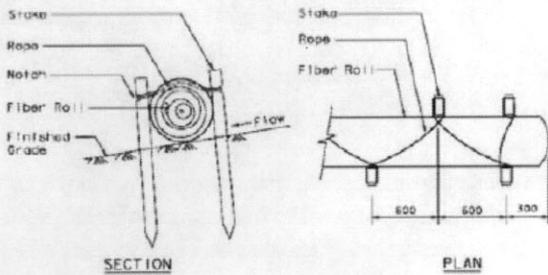
TYPICAL ROCK CHECK DAM SECTION



ELEVATION

plug gullies or other forms of erosion.

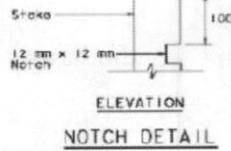
- If sand bags are used, the fabric of the bags should be inspected for signs of deterioration.



SECTION

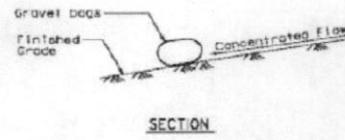
PLAN

STAKING AND LASHING DETAIL



ELEVATION

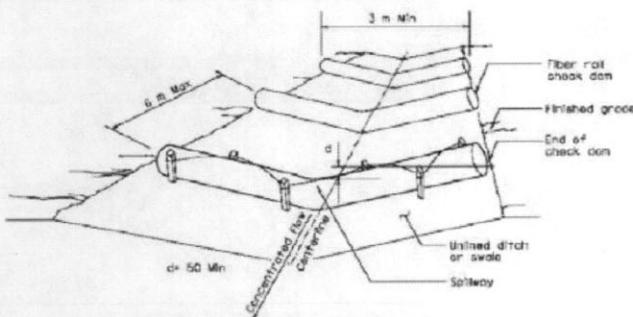
NOTCH DETAIL



SECTION

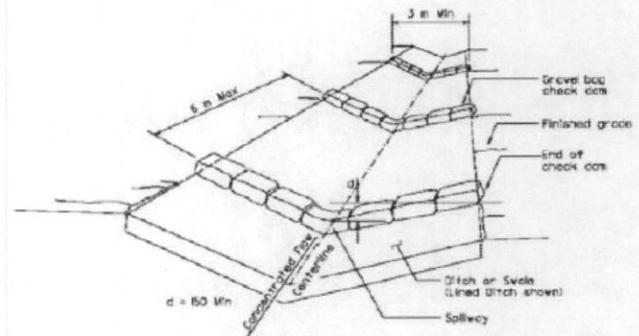
NOTE
 1. Spillway depth 'd' shall be maintained to prevent flanking of concentrated flow around the ends of check dam.

TEMPORARY CHECK DAM (TYPE 2)



PERSPECTIVE

TEMPORARY CHECK DAM (TYPE 1)



PERSPECTIVE

TEMPORARY CHECK DAM (TYPE 2)

Mulching

Mulching is a temporary soil stabilization or erosion control method where materials such as grass, hay, woodchips, or straw are placed on the soil surface. The primary function of mulching is to reduce erosion, increasing infiltration, and reducing runoff (by protecting bare soil from rainfall impact). Suitable applications for mulching are disturbed soil areas requiring temporary protection until permanent stabilization is established. Mulching is not suitable for use on slopes steeper than 3:1. It is best suited to be used on flat areas or gentle slopes or 5:1 or flatter. Mulch and compost may introduce unwanted species. Mulching is not suitable for areas exposed to concentrated flows.

Mulching protects the site from erosion until vegetation is established and reduces rainfall erosion by absorbing the energy of impact velocities thereby reducing the depth of rain drop impact. Mulching will increase the infiltration by reducing runoff volume thereby increasing the water use efficiency of precipitation or irrigation waters. It will decrease sheet flow velocities which cause the erosion of soil and aid in the germination and growth of seeds by reducing evaporation.

Mulching can be costly but is usually dependent on the season and local conditions. Application of mulch to an appropriate uniform depth can be labor intensive and mulch may need to be reapplied to soil after several months due to decay. Mulch can be easily blown or washed off when not secured.

Mulching Inspection and Maintenance:

Regardless of the mulching technique selected, the key consideration in inspection and maintenance is that the mulch needs to last long enough to achieve erosion control objectives. If the mulch is applied as a stand-alone erosion control method over disturbed areas (without seed), it should last the length of time the site will remain barren or until final re-grading and re-vegetation. Where vegetation is not the ultimate cover, inspection and maintenance should focus on longevity and integrity of the mulch. Mulch should be reapplied when bare earth becomes visible.

USDA Recommended Mulch Application Rates for Organic Mulching Materials:

Material	Rates Per Acre	Notes
Straw	1.5 to 2 tons	Spread by hand or machine, tack down when subject to blowing
Wood Chips	5 to 6 tons	Treat with 12 lbs of Nitrogen fertilizer per ton of mulch material. Will not blow like straw mulch.
Pine Straw	1 to 2 tons	Spread by hand or machine.

Drainage Swales

Drainage swales are channels with a lining of vegetation, riprap, asphalt, concrete or other material. It is constructed by excavating a channel and applying the appropriate stabilization. A drainage swale is applicable when runoff is to be conveyed without causing erosion. Drainage swales can be used to convey runoff from the bottom or top of a slope. They accomplish this by intercepting and diverting the flow to a suitable outlet. Drainage swales can handle flows from large drainage areas. Swales can be installed at the perimeter of the construction site to prevent sediment laden runoff from leaving the site. Excavation of a swale can be easily performed with earth moving equipment.

Drainage swales are only effective if they are properly installed. Standard engineering design criteria for small open channel and closed conveyance systems should be used. Typically, drainage swales are implemented in drainage areas of less than 5 acres and they are placed above or below a cut or fill slope. Swale bottom width should be at least 2 feet and should be a minimum depth of 18 inches with side slopes of 2:1 or flatter. Drainage swales should be laid at a minimum grade of 1 percent but not more than 7 percent, if possible. Swales should be designed so that they will not be overtopped by the 10-year storm event.

Maintenance and Inspection of Drainage Swales:

- Inspect ditches and berms for washouts. Replace lost riprap, damaged linings or soil stabilizers as needed.
- Inspect channel linings, embankments, and beds of ditches and berms for erosion and accumulation of debris and sediment. Remove debris and sediment and repair linings and embankments as needed.

General Construction Notes on Drainage Swales:

- No more than 5 acres may drain to a temporary drainage swale.
- Place drainage swales above or below, not on, a cut or fill slope.
- Swale bottom width should be at least 2 ft.
- Depth of the swale should be at least 18 in.
- Side slopes should be 2:1 or flatter.
- Temporary conveyances should be completely removed as soon as the surrounding drainage area has been stabilized or at the completion of construction.
- Construct the drainage swale with a positive grade to a stabilized outlet.
- Provide erosion protection or energy dissipation measures if the flow out of the drainage swale can reach an erosive velocity.

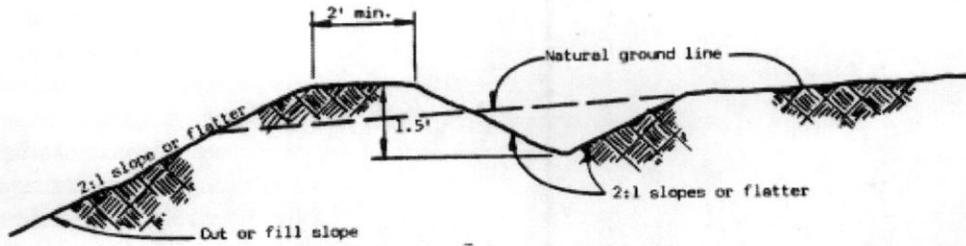
Interceptor Dikes and Ditches

Interceptor dikes and ditches are used to keep up slope runoff from crossing areas where there is a high risk of erosion. They reduce the amount and speed of flow and then guide it to a stabilized outfall or sediment trapping area. Interceptor dikes and ditches divert runoff using a combination of earth dikes and vegetated ditches. Runoff is channeled away from locations where there is a high risk of erosion by placing a diversion dike or ditch at the top of sloping disturbed area. Interceptor ditches and dikes can be either temporary or permanent storm water control structures. They are generally built around the perimeter of a construction site before any major soil disturbing activity takes place.

Interceptor dikes and ditches are simple and effective measures for routing runoff away from areas subject to erosion. An advantage of using interceptor dikes and ditches over other erosion control measures is that they can handle flows from larger drainage areas, if designed properly, and are relatively inexpensive to construct because they use material normally found on site. Interceptor ditches and dikes may cause problems with vegetative growth if water flow is too fast and usually require additional maintenance, inspections, and repairs.

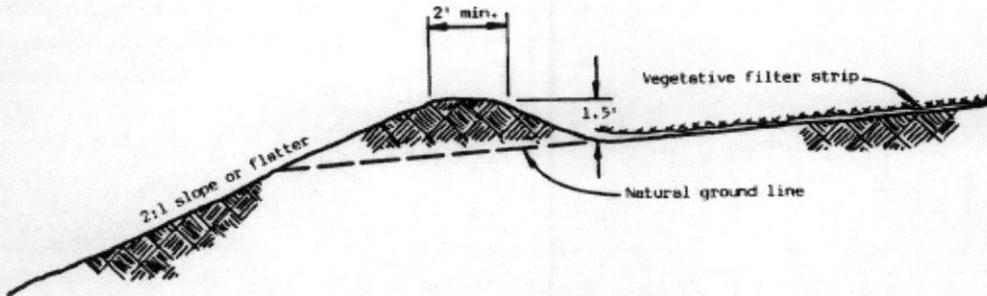
Construction Notes for Interceptor Ditches and Dikes:

- Dikes and ditches must be constructed of non-erodible material because they will be used to divert overland flow.
- The minimum ridge height is 18-inches, the minimum top width is 2 feet, and the maximum side slope is 2:1.
- Must have positive grade which drains to a stabilized outlet.
- Structures may be permanent or temporary depending on the construction and application.
- Ditches should convey runoff from the drainage design areas above the cut..



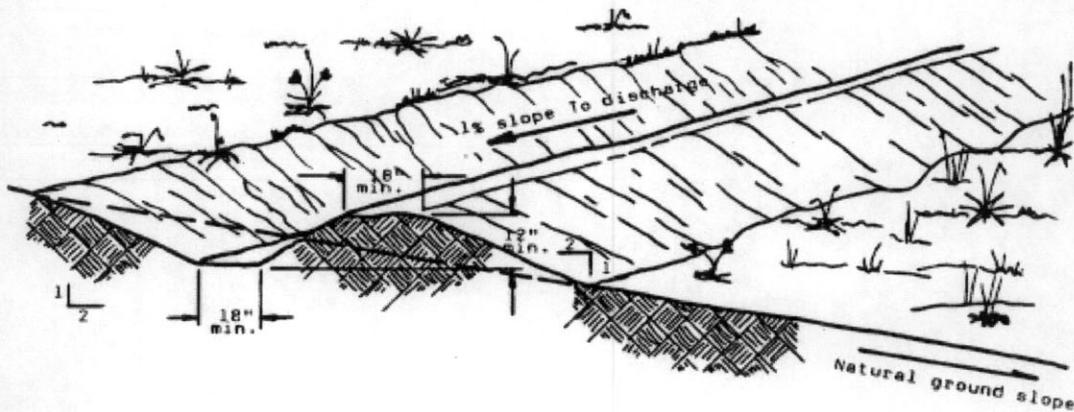
NOTE: Bed of dike to be riprapped.

SECTION



NOTES: 1) Dike constructed by dozer moving soil upslope and dumping at top of slope.
2) Outlet to stabilized vegetated soil.

SECTION



INTERCEPTOR TRENCH

Sediment Traps

A sediment trap is a containment area where sediment-laden runoff is temporarily detained under quiescent conditions, allowing sediment to settle out or before the runoff is discharged. Sediment traps are formed by excavating or constructing an earthen embankment across a waterway or low drainage area.

Sediment traps should be considered for use at the perimeter of the site at locations that are typically sediment laden. Sediment traps also work well at multiple locations within the project site where sediment control is needed and around or upslope from storm drain as inlet protection measures. Sediment traps may be used on construction projects where the drainage area is less than 5 acres. Traps would be placed where sediment-laden storm water may enter a storm drain or watercourse. When used as a supplemental control, sediment traps provide additional protection for a water body or for reducing sediment before it enters a drainage system.

Limitations of sediment traps are as follows:

- Requires large surface areas to permit infiltration and settling of sediment.
- Not appropriate for drainage areas greater than 5 acres.
- Only removes large and medium sized particles and requires upstream erosion control.
- Should not be located in live streams because it will not remove very fine silts and clays.

Design of sediment traps should consider the following USEPA specifications:

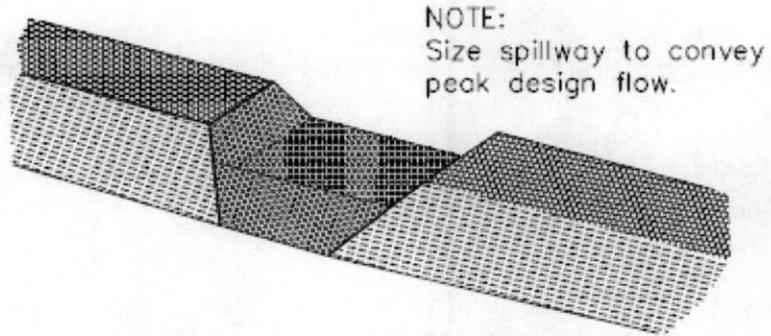
- The capacity of the sedimentation pond should provide storage volume for 3,600 ft³ /acre of drainage area.
- The outlet should be designed to provide a 2 foot settling depth and an additional sediment storage area 1-1/2 feet deep at the bottom of the trap.
- The embankment should not exceed 5 feet in height.
- The recommended minimum width at the top of the embankment is between 2 and 5 feet.
- Minimum recommended length of the discharge weir is between 3 and 4 feet with a maximum length is 12 feet.

Construction Notes for Sediment Traps:

Sediment traps can be constructed by excavating a depression in the ground or creating an impoundment with a small embankment. Sediment traps should be installed outside the area being graded and should be built prior to the start of the grading activities or removal of vegetation. To minimize the area disturbed by them, sediment traps should be installed in natural depressions or in small swales or drainage ways. The following steps must be followed during installation:

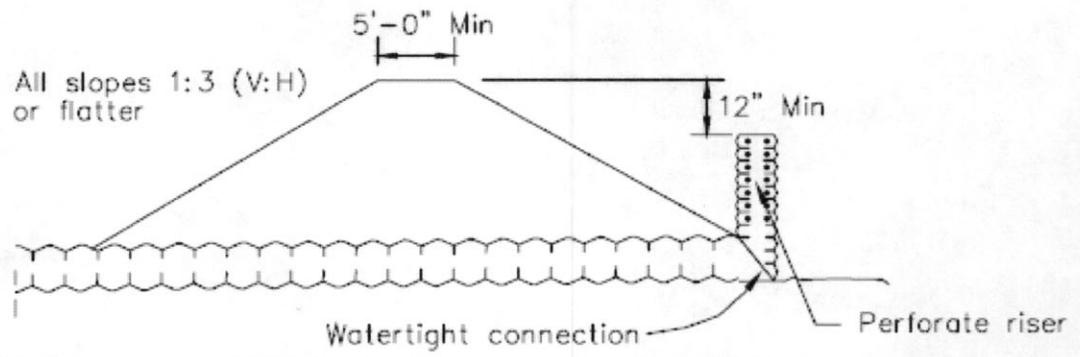
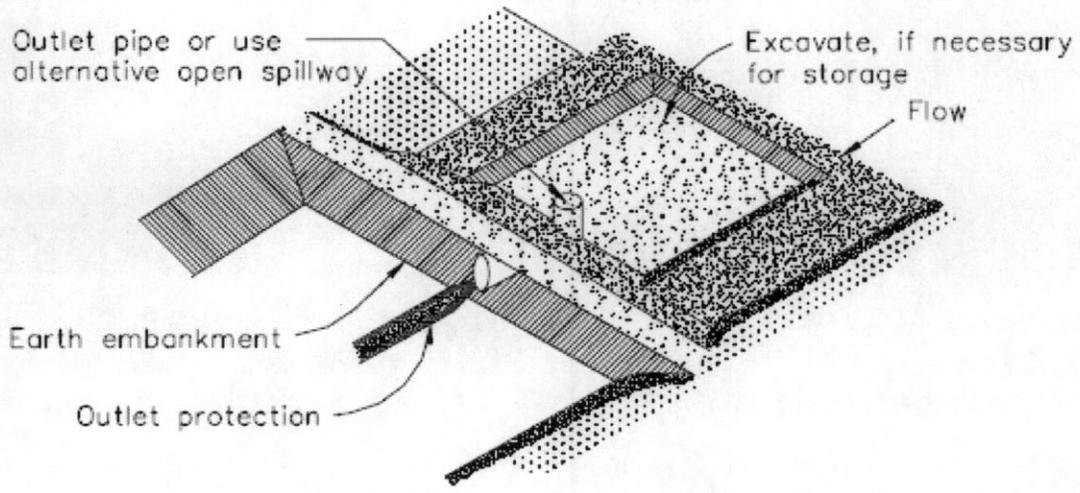
- The area under the embankment must be cleared, grubbed, and stripped of any vegetation and root mat. The pool area should be cleared.
- The fill material for the embankment must be free of roots or other woody vegetation as well as oversized stones, rocks, organic material, or other objectionable material. The embankment may be compacted by traversing with equipment while it is being constructed.
- All cut-and-fill slopes should be 3:1 or flatter.
- When a riser is used, all pipe joints must be watertight.

- When a riser is used, at least the top two-thirds of the riser should be perforated with 0.5 inch diameter holes spaced 8 in. vertically and 10 to 12 in. horizontally.
- When an earth or stone outlet is used, the outlet crest elevation should be at least 1 ft below the top of the embankment.



NOTE:
Size spillway to convey
peak design flow.

TYPICAL OPEN SPILLWAY



EMBANKMENT SECTION THRU RISER

TYPICAL SEDIMENT TRAP

REFERENCES

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