MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

MINING NOTICE OF INTENT (MNOI)
FOR COVERAGE UNDER
MINING STORM WATER, DEWATERING AND NO DISCHARGE
GENERAL PERMIT MSR32 __ __ __ __
(Number to be assigned by State)

File at least 30 days prior to the commencement of mining; 15 days if a Storm Water Pollution Prevention Plan (SWPPP) is already on file and mine dewatering is not proposed. Lateral expansion of an existing mine that has general permit coverage requires the submittal of the Major Modification Form, not a new MNOI. However, modification of the existing SWPPP to include the expansion is required. Discharge of storm water or impounded water associated with mining or the operation of a wastewater recirculation system with no discharge without written notification of coverage from MDEQ is a violation of State Law.

If the company seeking coverage is a corporation, a limited liability company, a partnership, or a business trust, attach proof of its registration with the Mississippi Secretary of State and/or its Certificate of Good Standing. This registration or Certificate of Good Standing must be dated within twelve (12) months of the date of the submittal of this coverage form. Coverage will be issued in the company name as it is registered with the Mississippi Secretary of State.

Please indicate the activities to be covered by this MNOI (check all that apply).

- ☑ **Storm Water Discharges Associated with Mining**
- ☐ **Mine Dewatering**
- ☐ **Wastewater Recirculation System with No Discharge**

The appropriate section of the MNOI must be completed if the applicant proposes to discharge storm water, discharge impounded mine water (dewatering) and/or operate a wastewater recirculation system with no discharge.

A site-specific Storm Water Pollution Prevention Plan (SWPPP) developed in accordance with ACT5 of the General Permit and a United States Geological Survey (USGS) quadrangle map or photocopy, indicating the site location and outfalls must be included with the MNOI submittal. The name of the quadrangle map must be shown on all copies. Quadrangle maps can be obtained from the MDEQ, Office of Geology at 601-961-5523. Additional submittals may include the following (check all that apply).

- ☐ **Section 404 Documentation**
- ☐ **Notice of Exempt Operations Form**
- ☑ **Dam/Reservoir Safety Permit or Written Authorization**

ALL INFORMATION MUST BE COMPLETED (indicate "N/A" where not applicable)

AI 79491

MSR32 2 9 3 4

(NUMBER TO BE ASSIGNED BY STATE)

APPLICANT IS THE: ☑ **OWNER** ☐ **OPERATOR**

OWNER CONTACT INFORMATION

OWNER CONTACT PERSON: Huey Ngo

OWNER COMPANY LEGAL NAME: MS H&L 21, LLC

OWNER STREET OR P. O. BOX: 91 Grandview Circle

OWNER CITY: Brandon **STATE:** MS **ZIP:** 39047

OWNER PHONE #: (601) 201-7821 **OWNER EMAIL:** hueyn28@yahoo.com

OPERATOR CONTACT INFORMATION

OPERATOR CONTACT PERSON:

OPERATOR COMPANY LEGAL NAME:

OPERATOR STREET OR P. O. BOX:

OPERATOR CITY: **STATE:** **ZIP:**

OPERATOR PHONE #: (_____)_____ **OPERATOR EMAIL:**

MINE INFORMATION

MINE NAME: Zoo Pit Surface Mine and Lake

MINE SITE ADDRESS (If the physical address is not available, please indicate nearest named road.)

Street: North Old Canton Road

City: Canton **State:** MS **County:** Madison **Zip:** 39046

SW /4 OF NE /4 OF SECTION 1, TOWNSHIP 8N, RANGE 2E

MINE SITE TRIBAL LAND ID (N/A If not applicable): n/a

ATTACH A USGS QUAD MAP, EXTENDING ½ MILE BEYOND FACILITY, OUTLINING THE MINE BOUNDARIES
(Maps can be obtained from the Mississippi Office of Geology. For information call 601-961-5523).

LATITUDE: 32 degrees 34 minutes 08 seconds **LONGITUDE:** -90 degrees 02 minutes 37 seconds

LAT & LONG DATA SOURCE (GPS (*Please GPS Entrance Gate*) or Map Interpolation): GPS

TOTAL ACREAGE: 19.22 **MATERIAL TO BE MINED:** Fill Dirt

WILL HYDRAULIC DREDGING BE USED? ☐ YES ☑ NO

WASHING OF SAND/GRAVEL? ☐ YES ☑ NO

JL- Received via email 8/17/2021

ESTIMATED START DATE: 2021-08-01 (YYYY-MM-DD) **ESTIMATED END DATE:** 2024-08-01 (YYYY-MM-DD)

SIC CODE 1499 **NAICS CODE** 212399

RECEIVING STREAM INFORMATION

NEAREST NAMED RECEIVING STREAM: Tributary of Bear Creek

IS RECEIVING STREAM ON MISSISSIPPI'S 303(D) LIST OF IMPAIRED WATER BODIES? (The 303(d) list of impaired waters and TMDL stream segments may be found of MDEQ's website: http://www.deq.state.ms.us/MDEQ.nsf/page/TWB_Total_Maximum_Daily_Load_Section**)** ☑ YES ☐ NO

HAS A TMDL BEEN ESTABLISED FOR THE RECEIVING STREAM SEGMENT? ☑ YES ☐ NO

COMPLETE IF STORM WATER DISCHARGE IS PROPOSED

ATTACH A STORM WATER POLLUTION PREVENTION PLAN (SEE PERMIT FOR REQUIREMENTS)

IDENTIFY THE ASSOCIATION OR GENERIC SWPPP ON FILE AT MDEQ: n/a

COMPLETE IF WASTEWATER RECIRCULATION SYSTEM WITH NO DISCHARGE IS PROPOSED

DISTANCE BETWEEN RECIRCULATION POND(S) AND PROPERTY LINE: n/a **(FT)**
(MUST BE AT LEAST 150 FEET)

NUMBER OF RECIRCULATION POND(S): n/a

STORAGE CAPACITY OF EACH RECIRCULATION POND(S): n/a **(FT^3)**

COMPLETE IF MINE DEWATERING IS PROPOSED

ESTIMATED DEWATERING VOLUME: n/a **(GAL/DAY)**

NAME AND ADDRESS OF THE RECIPIENT OF THE DISCHARGE MONITORING REPORTS (DMRs), IF DIFFERENT FROM SIGNATORY: n/a

DOCUMENTATION OF COMPLIANCE WITH OTHER REGULATIONS/REQUIREMENTS

Coverage under this general permit will not be granted until all other required MDEQ permits and approvals are addressed.

WILL THE CONSTRUCTION OR OPERATION OF THIS MINE INVOLVE THE RE-ROUTING, FILLING OR CROSSING OF A WATER CONVEYANCE OF ANY KIND? ☐ **YES** ☑ **NO**

If yes, contact the U.S. Army Corps of Engineers' Regulatory Branch for permitting requirements. If the mine requires a Corps of Engineers Section 404 permit, provide appropriate documentation with this MNOI that:

- **The mine has been approved by individual permit, or**
- **The work will be covered by a nationwide permit and NO NOTIFICATION to the Corps is required, or**
- **The work will be covered by a nationwide or general permit and NOTIFICATION to the Corps is required.**

LIST ANY NPDES PERMIT NO(s). n/a **GEOLOGY APPLICATION/PERMIT NO.** A 2065

LIST OTHER GEOLOGY PERMIT NUMBERS THAT APPLY TO COVERAGE AREA _____

_____

IS THE MINE LESS THAN 4 ACRES AND GREATER THAN 1320 FEET FROM ANOTHER MINE?

☐ **YES** **A "Notice of Exempt Operations" Form must be included with the MNOI or proof of prior submission, if previously submitted to the Office of Geology.**

☑ **NO** **A "Notice of Intent to Mine Class I or Class II Materials" Form must be filed before coverage will be granted under the Mining General Permit. For information on Office of Geology requirements, call 601-961-5515.**

LIST ANY LOCAL STORM WATER ORDINANCES WITH WHICH THE OPERATIONS MUST COMPLY AND SUBMIT ANY ASSOCIATED APPROVAL DOCUMENTATION. n/a

IF IMPOUNDMENTS WILL BE CONSTRUCTED ABOVE NATURAL SURFACE ELEVATIONS, INDICATE WHICH, IF ANY, OF THE FOLLOWING APPLY.

☐ **The impoundment will be constructed with a peripheral dam or levee 8 feet or greater in height, measured from the lowest elevation of its toe.**

☐ **The impoundment will have a maximum storage volume greater than 25 acre-feet.**

☐ **The impoundment will impound a watercourse with a continuous flow.**

☐ **The impoundment has the potential to threaten downstream lives or man-made structures.**

If <u>any</u> of the impoundments meet any of the above criteria, the applicant will be required to obtain written authorization from MDEQ, Dam Safety Division before coverage will be granted under the Mining General Permit.

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 gathered and evaluated 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.

Authorized Signature[1]	**Date** 8/5/2021
Printed Name Huey Ngo	**Title** Corporate Officer of LLC

[1]**This application shall be signed according to the General Permit, Act 15, T-4 as follows:**

- **For a corporation, by a responsible corporate officer.**
- **For a partnership, by a general partner.**
- **For a sole proprietorship, by the proprietor.**
- **For a municipal, state or other public facility, by either a principal executive officer, the mayor, or ranking elected official.**
- **Duly Authorized Representative**

Please submit this form to: **Chief, Environmental Permits Division**
MDEQ, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

Michael Watson
SECRETARY OF STATE

This is not an official certificate of good standing.

Name History

Name	Name Type
MS H&L 2 LLC	Legal

Business Information

Business Type:	Limited Liability Company
Business ID:	1156151
Status:	Good Standing
Effective Date:	09/04/2018
State of Incorporation:	Mississippi
Principal Office Address:	91 GRANDVIEW CIR BRANDON, MS 39047-7397

Registered Agent

Name

Huey Ngo
91 Grandview Circle
Brandon, MS 39047

Officers & Directors

Name	Title
Angela B Healy 6360 I-55 North, Suite 350 Jackson, MS 39211	Organizer
Huey J Ngo 91 GRANDVIEW CIR Brandon, MS 39047	Manager

STATE OF MISSISSIPPI
TATE REEVES
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHRIS WELLS, EXECUTIVE DIRECTOR

May 6, 2021

MS H&L 2, LLC
Attn: Huey Ngo
91 Grandview Circle
Brandon, MS 39047

Re: Application 21-011 to Construct a Dam and Impound Surface Water
Canton, Madison County, Mississippi

Dear Mr. Ngo,

The Mississippi Department of Environmental Quality (MDEQ) Dam Safety Division received an application for a permit to construct a dam and impound surface water on your property. Mississippi Commission on Environmental Quality Dam Safety Regulation 11 Miss. Admin. Code Pt. 7 Ch. 3, Rule 3.2 Part B states:

> *(2) A permit shall not be required for:*
>
> *(a) a peripheral dam or barrier eight (8) feet or less in height, measured from the point of lowest elevation of its toe, regardless of the impounded storage volume: or*
> *(b) a dam that impounds twenty-five (25) acre-feet or less at maximum storage volume; or*
> *(c) a dam that does not impound a watercourse with a continuous flow of water, as determined by the Commission.*

After a review of the specifications you shared as part of your application, MDEQ finds that your construction plans do not require a permit for construction from the MDEQ Dam Safety Division. Should construction specifications change or the dam be built different from the plans you provided, a permit could become necessary. Also, please be aware that this exemption letter does not authorize you to proceed with the construction of your dam if you have not obtained other required federal, state, and local approvals that apply to your project, such as a Corps of Engineers permit for placing fill in wetlands or other waters of the United States. If you have any questions or comments regarding your construction project or dam related issues, please call me at (601) 961-5207.

Sincerely,

William McKercher

William McKercher P.E.
Chief, Dam Safety Division

cc: Josh Broome, P.E. – WGK, Inc

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

for

ZOO PIT SURFACE MINE AND LAKE

CANTON, MADISON COUNTY, MS

May 3, 2021

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
ZOO PIT SURFACE MINE AND LAKE
CANTON, MADISON COUNTY, MS

Table of Contents

I. Introduction

The purpose of this report is to identify potential sources of pollution on this construction site in an effort to minimize its effect on the environment. This report will give the user information on the site, outline erosion controls to be used and will discuss the implementation of the construction and how the erosion control should be modified to prevent siltation and erosion throughout all aspects of construction.

This SWPPP was prepared for the MS H&L 2, LLC for use in implementing construction of the Zoo Pit Surface Mine and Lake in Madison County, Mississippi and is in substantial compliance with MDEQ Regulations.

II. Site Information

This project is located in Section 1, Township 9 North, Range 2 East, Madison County, Mississippi. This site is located east of North Old Canton Rd and south of Canton Pkwy in Canton, MS. A quad map and soils map are attached to show additional information on the site.

A. Existing Soils: This property is made up silt loam types with low slopes as noted on the Soil Survey maps for this area. See attached map.

B. Receiving Waters: This property drains into a tributary of Bear Creek. The tributary is a perennial stream, and the Bear Creek Basin has established TMDLs for sediment.

C. U.S. Corp of Engineer Permit: A wetland delineation was performed, and project information was sent the Corps of Engineers. The Corps issued an Approved Jurisdictional Determination, and it was also determined that no jurisdictional waters will be impacted by the proposed construction activities.

D. Total Area Disturbed: Construction may disturb up to 19.2 acres for required excavation and grading for the mining operation and construction of the lake.

E. Drainage Area: This construction site will have approximately 19.2 acres on-site contributing to the offsite drainage.

III. Controls

The controls described below are general in nature and are shown to exhibit the type of erosion controls that may be used in this type of construction.

A. Vegetative Controls. These controls are an inexpensive and effective way to protect soil from raindrop impact, a major erosion force. It also decreases erosion due to flowing water by reducing its velocity. Roots from vegetation hold the soil in place and increase infiltration. Topsoil should be used where existing soils are not suitable for vegetative growth.

1. Vegetative Buffer Zones. An undisturbed area will remain on the perimeter of the property. This will aid in the prevention of sediment leaving the site.

2. Temporary Seeding. Any disturbed areas that will be left undisturbed for 14 days or more will be seeded (temporarily) immediately, with fast growing annual grasses.

3. Permanent Seeding. Perennial grasses will be used within 7 days after final grading has been completed. If the weather is not conducive to permanent seeding a temporary seed should be used. Sodding may also be necessary in highly erodible areas.

4. Mulching. Blown hay bales should be used in conjunction with permanent seeding to prevent erosion until seeding can become established. Mulch will also retain moisture and dampen temperature extremes.

B. Structural Controls. These controls divert storm water flows away from disturbed areas, reduce runoff velocities, filter out sediment and remove sediment by ponding.

1. Silt Fences: Silt fences are used below disturbed areas to capture sediment from sheet flow. Eight inches of fence should be buried in a trench about 4 inches deep and 4 inches wide. **Silt fences not buried are improperly installed and could result in substantial fines.** The maximum slope length behind a fence is 100 feet and the maximum slope is 2 horizontal feet to 1 vertical feet. The fence must be maintained and the sediment removed when deposits reach on-half the fence height. After construction is complete, the silt fences should be removed and the area should be graded, seeded and mulched.

2. Slope drains: Slope drains are piping or lined channels that carry storm water downslope without erosion. A good example would be a downspout extender. Extenders may be used to protect temporarily stabilized areas from roof runoff. Extenders can direct water from roof gutters to paved or grassed areas. Remove extenders following permanent stabilization.

3. Construction entrance/exits: These are stone stabilized site entrances which reduce sediment tracked onto public roads. Apply gravel or crushed rock to the driveway area and restrict traffic to this one route. Use 3 to 6 inches of gravel over a geotextile fabric. At the end of each day sweep or scrape up any soil tracked onto the street. Limit “standard” vehicle access (including workers’ vehicles) to only streets and roads, keep

vehicles off of future yard areas; limit tracking of mud onto streets by requiring any required vehicles to use designated access drives. Streets are conduits for storm water, it is important to keep mud and sediment off the streets.

4. Stockpiles: Stockpiles of sand or soil should be covered with plastic or tarps at the end of each workday, or surrounded with silt fence or wattles. Do not locate a stockpile near a street, storm drain inlet, or ditch.

5. Erosion control blankets or mats: These are machine-produced mats of straw or other fibers held together with netting that provide temporary or permanent stabilization in critical areas, such as slopes or channels, so that vegetation may be established.

6. Storm Drain Inlets: These on site must be protected by surrounding or covering with a filter material until final stabilization has been achieved.

7. Sediment basins: These are used to allow sediment to settle out. Sediment basins are made by diking, excavating or a combination of the two. Side slopes should be 2 to 1 or flatter and they should be built in a trapezoidal shape. Sediment should be removed when the volume of the basin has been reduced to 1/2 of its original volume.

8. Riprap outlet protection: This is used at the outlet of culverts or channels to reduce the depth, velocity and energy of water so the flow will not erode the downstream area or an off-site area or waterway.

9. Wattles: This is used to protect silt from entering curb inlets.

C. Housekeeping Practices: Waste receptacles will be provided, and regular collection of waste will be conducted. Equipment will be repaired and maintained offsite. Portable sanitary facilities will be provided for workers. These facilities will be provide and adequately maintained. Sanitary facilities will be placed in a safe location on the site away from drop inlets. Protected storage areas will be provided for chemicals, paints, solvents, fertilizers, pesticides, herbicides, detergents, and potentially toxic materials. An area will be created for concrete truck wash off by excavating material and using the removed material as an earthen berm to contain any wash off and any concrete remaining in truck will be disposed of at the batch plant.

D. Post Construction Controls: Silt fence will be maintained until construction related erosion has ended. Silt fence will be inspected after any significant rain event and a minimum of four times per month. Seeding will be maintained and re-seeded as needed.

IV. SWPPP

A. Site Information

This project shall consist of a surface mining operation and excavation of a recreational lake. The nearest receiving stream is a perennial tributary that runs along the northern boundary of the project area and discharges into a tributary of Bear Creek. The drainage basin for Bear Creek has Total Maximum Daily Load (TMDL) values established for sediment.

B. Controls

Vegetative Controls. Topsoil removed from the construction site will be stockpiled in a predetermined area for re-use in final grading. Any disturbed areas that will be left undisturbed for fourteen days or more should be seeded (temporary seeding) immediately. After final grading, all disturbed areas will be seeded (permanent seeding) immediately. Vegetative controls help reduce silt pollution by solidifying surface soils and filtering storm water.

Structural Controls. Approximately 2,220 LF of silt fence will be constructed on the downstream limits of the construction area. Silt fence will be doubled in the 150-foot buffer area with the receiving tributary. There will be a construction entrance a minimum of 50 feet long and wide enough to accommodate construction vehicles. The construction entrance will consist of geotextile fabric and a layer of #4 limestone aggregate placed on an existing gravel driveway. The downstream quadrant of the proposed lake will be excavated first and will serve as a settling pond for storm water runoff. See attached site plan with erosion control measures and grading plan. Silt fence reduces runoff velocity and acts as a filter for displaced silt to prevent it from entering the tributary. Settling basins provide a “quiet zone” for storm water silt to settle out before being discharged into the tributary.

Housekeeping Practices. All equipment maintenance and repair will be done at a designated area onsite. Fertilizers or any other potentially toxic materials will not be stored onsite. Portable sanitary facilities will be provided for construction workers. Housekeeping practices help prevent spills of hazardous materials that can wash into the tributary.

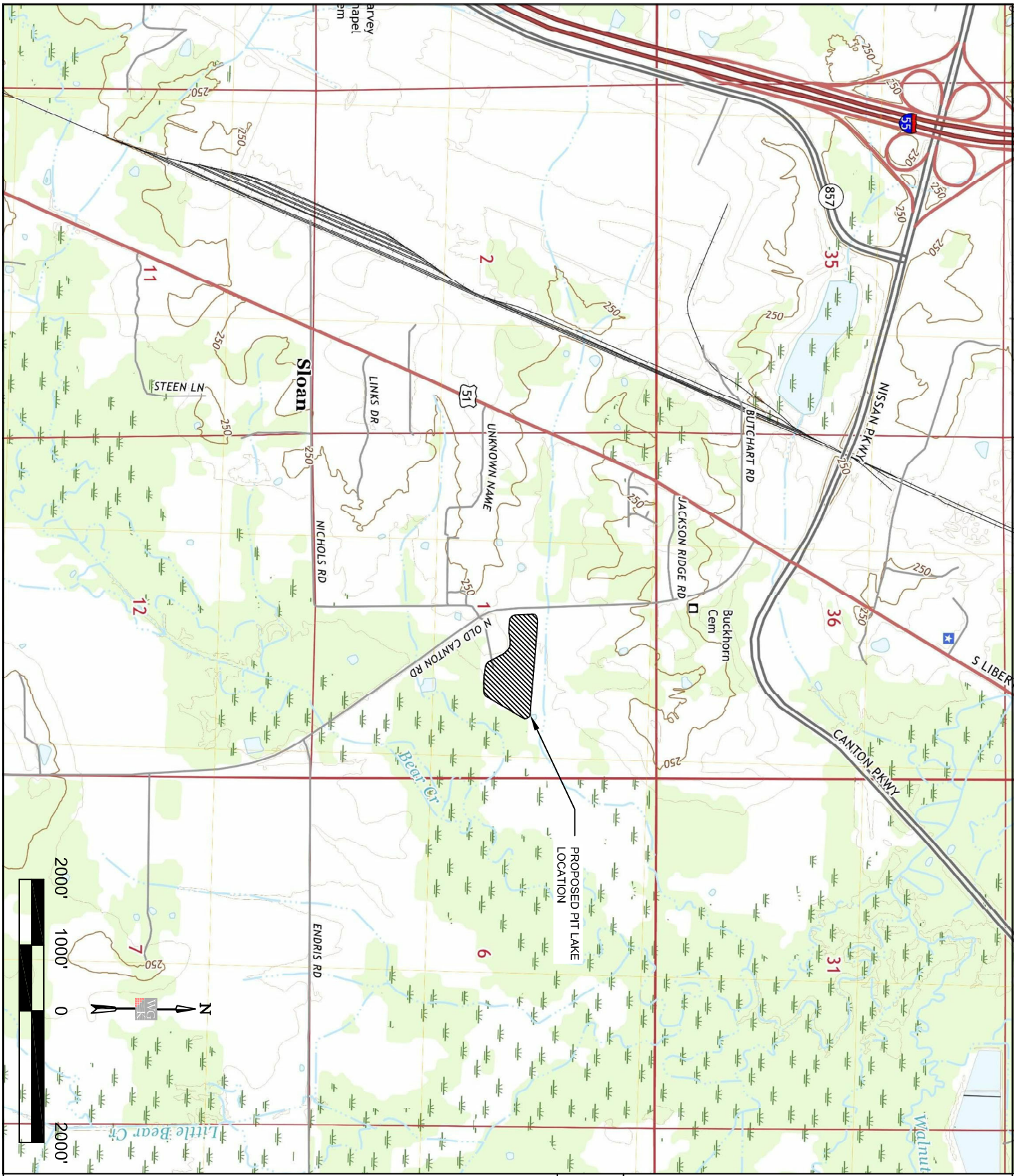
Post Construction Measures. Silt fence will be maintained until construction related erosion has ended. Silt fence will be inspected after any rain event that produces a discharge and a minimum of four times per month. Seeding will be maintained and re-seeded as needed. Post construction measures establish a sustainable surface that will prevent silt from being displaced during storm events and helps slow and filter storm water during rain events.

C. Implementation Sequence

1. Install silt fence to control any silt runoff caused by construction.
2. Install construction entrances.
3. Remove and stockpile any topsoil as necessary.
4. Seed, fertilize and mulch topsoil stockpiles.
5. Construct berm adjacent to the receiving tributary.
6. Install protection at lake outlet.
7. Excavate settling basin adjacent to the lake outlet.
8. Proceed with other construction activities.
9. All erosion control will be maintained during the entire construction process.
10. Once construction is completed, remove construction entrances, install sod/seed, fertilize, and mulch in all disturbed areas.
11. All temporary erosion measures are to be removed once the site is stabilized.

D. Inspection and Maintenance Schedules

1. Inspections will be conducted at least weekly for a minimum of four inspections per month and as often as necessary to ensure that appropriate erosion and sediment controls have been properly constructed and maintained and to determine if additional or alternative control measures are required.
2. Accumulated sediment shall be removed from all structural controls, including silt fence and straw wattles when the deposits reach one-third to one-half the height of the control.
3. Non-functioning controls shall be repaired, replaced, or supplemented with functional controls within twenty-four (24) hours of discovery or as soon as field conditions allow.
4. Soil stabilizing-vegetated stabilization measures must be initiated whenever any clearing, grading, excavating, or other land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of fourteen (14) days or more. The appropriate temporary or permanent vegetative practices shall be implemented immediately.
5. Maintain all vegetated areas to provide proper ground cover – reseed, fertilize, and mulch as needed.



WGK ENGINEERS & SURVEYORS

DATE	MAR '21
DRAWN BY	WS

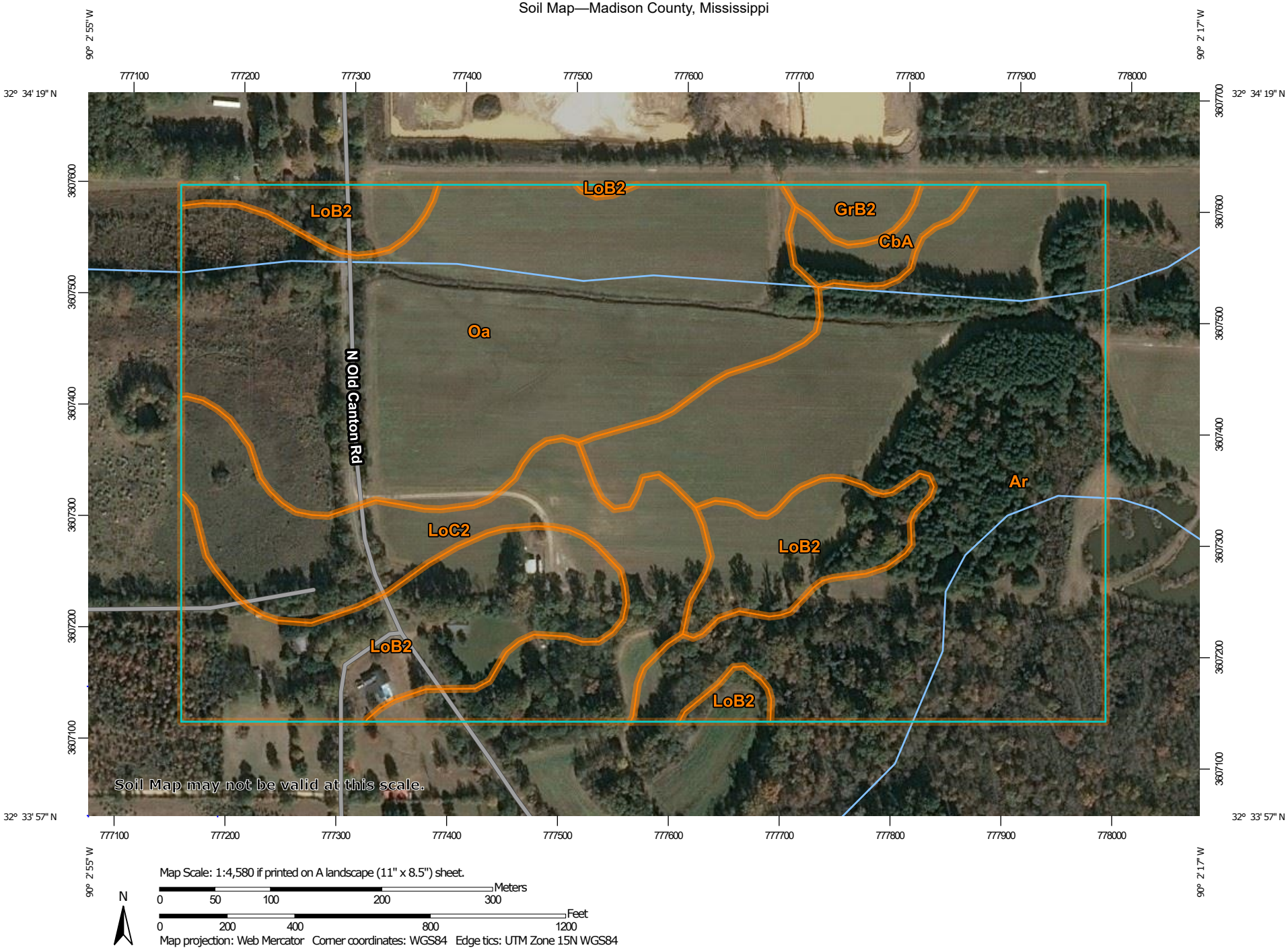
HUEY J. NGO
ZOO PIT SURFACE MINE AND LAKE
USGS TOPO MAP

HUEY NGO/DWG

SCALE: 1" = 2000'

WGK# 2020-423-00

M1


90° 2'55" W
90° 2'17" W
32° 34' 19" N
32° 33' 57" N
777100
777200
777300
777400
777500
777600
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3607700
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3607200
3607100
LoB2
LoB2
GrB2
CbA
Oa
N Old Canton Rd
Ar
LoC2
LoB2
LoB2
LoB2
Soil Map may not be valid at this scale.
Map Scale: 1:4,580 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1200
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Madison County, Mississippi
Survey Area Data: Version 15, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ar	Ariel silt loam	34.8	34.9%
CbA	Calloway silt loam, 0 to 1 percent slopes	1.7	1.7%
GrB2	Grenada silt loam, 2 to 5 percent slopes, eroded	1.1	1.1%
LoB2	Loring silt loam, 2 to 5 percent slopes, moderately eroded, central	18.0	18.1%
LoC2	Loring silt loam, 5 to 8 percent slopes, moderately eroded, central	13.4	13.4%
Oa	Oaklimeter silt loam, 0 to 2 percent slopes, occasionally flooded, north	30.7	30.8%
Totals for Area of Interest		**99.7**	**100.0%**

WGK ENGINEERS & SURVEYORS

DATE	MAR '21
DRAWN BY	WS

HUEY NGO
ZOO PIT SURFACE MINE AND LAKE
SITE PLAN

HUEY NGO/DWG

SCALE: 1" = 300'

WGK# 2020-423-00

M2

NORTH OLD CANTON ROAD

N OLD CANTON RD (R.O.W.)

PROPOSED LAKE
MAX POOL ELEVATION = 228
BOTTOM ELEVATION = 213
MAX STORAGE VOL. = 171 AC-FT

RIPRAP LINED OUTLET, SEE DETAIL BELOW.

REMOVE EXISTING 15" CULVERT

REMOVE EXISTING 12" CULVERT

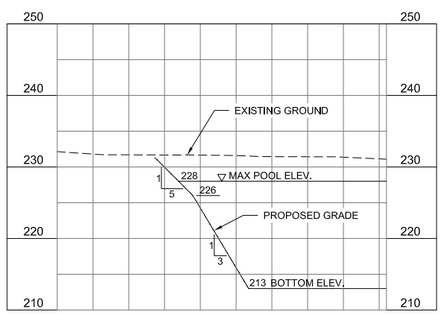
EXISTING GRAVEL DRIVE

230
225
220
215

235

N

60' 30' 0 60'



CROSS SECTION 1
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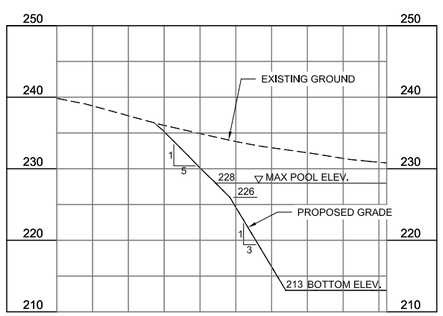
V. SCALE: 1" = 10'



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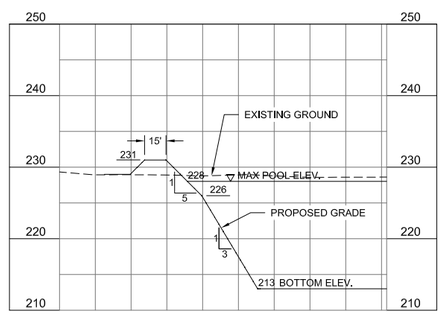

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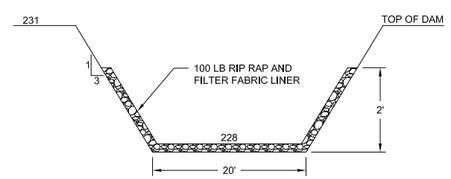

LAKE OUTLET SECTION
N.T.S.

BY	NO.	DATE	REVISIONS

DESIGNED BY WS
APPROVED BY DB
FOR CONSTRUCTION
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WG&K ENGINEERS & SURVEYORS

HUEY J. NGO
ZOO PIT SURFACE MINE AND LAKE
PROPOSED LAKE GRADING PLAN

GP