

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 6/24/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1930
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Cloudy	Temperature: 65
Weather (PM): Cloudy	Temperature: 80
Precipitation: None	Wind: E 4-10 mph

EQUIPMENT ON SITE

1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; Volvo A45G Haul truck, 1-Cat 963 Tracked Loader, 1-John Deere 644G Loader, 1-John Deere 850X Dozer, 1-Cat CS56B Smooth Drum Roller, 1-Volvo A40 Haul truck, 1-Komatsu PC360LC Long Reach Excavator, 1-Cat D6T Dozer, 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 8 Operators

- Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day.
- Continued placement of bridging layer along north side of Pond 1 in single 3 foot lift with onsite materials.
- Continued over-excavation along the toe of Pond 1 west slope to remove saturated materials. Material hauled and placed to dry west of Pond 2.
- Continued placement of D50-30 inch riprap onto cushion layer.
- Excavated ditch for new access road culvert.
- Placed culvert bedding in single 4 inch lift and compacted using bucket of 326F excavator.
- Installed 8 sections of 8 foot by 12 inch RCP pipe.
- Received delivery of D50-30 inch riprap and D50-2 inch cushion layer.
- Received delivery of 12 rolls Mirafi Geotextile for shoreline cushion layer, off-loaded using front loader with forks.
- Mobilized 1 Cat 326F Excavator.

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed several times throughout workday.
- System filters changed about every hour.
- System was pumping at a rate of 387 gpm at 0945, 336 gpm at 1200 and 401 gpm at 1656.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 06-15-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: <u>218,008 gal.</u>
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	Total: 11,996,946 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder monitored placement of bridging layer in Pond 1.
- Golder observed over-ex of saturated material from Pond 1.
- Golder monitored excavation of ditch for culvert under new access road.
- Golder monitored placement of a single 4 inch lift of Class IIIA for pipe bedding and compaction.
- Golder performed density test CS-1 on Class IIIA pipe bedding material placed in single 4 inch lift using a Troxler 3440 Nuclear Gauge. Compacted and tested bedding material met all specifications
- Golder observed dewatering of Ponds 1 and 2.
- Golder monitored installation of 12 inch RCP culvert.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Discharge flowmeter on dewatering system in Pond 2.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Over-Ex of saturated material from west side of Pond 1, looking south.



Placement of D50/30 inch riprap along shoreline, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavation of ditch for new access road culvert, looking east.



Placement of culvert bedding material, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Testing of compacted pipe bedding for culvert.



Installation of 12 inch RCP for access road culvert.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 6/25/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1930
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Sunny	Temperature: 66
Weather (PM): Sunny	Temperature: 85
Precipitation: None	Wind: W 3-20 mph

EQUIPMENT ON SITE
1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
<p>Work performed while Golder was onsite:</p> <p>Ryan Central -2 Foreman, 7 Operators</p> <ul style="list-style-type: none"> • Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day. • Continued placement of bridging layer along west side of Pond 1 in single 3 foot lift with onsite materials. • Continued over-excavation along the toe of Pond 1 west slope to remove saturated materials. Material hauled and placed to dry west of Pond 2. • Continued clearing vegetation from slope along shoreline with 349E excavator, material loaded into haul trucks for placement in Pond 1 for bridging layer. • Continued cutting shoreline slope to sub-grade for geotextile installation. • Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope. • Loaded onsite structural fill from stockpile into three on-road dump trucks for haul to chemical ponds. • Began placement of on-site structural fill to cap both chemical ponds, material placed in at 12 inch loose lifts and compacted using a smooth drum roller. • Received delivery of D50-30 inch riprap and D50-2 inch cushion layer. <p>ProAct Services – 1 Foreman and 1 Laborer</p> <ul style="list-style-type: none"> • ProAct onsite at 0700 to startup dewatering system in Pond 2. • Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M. • System back flushed several times throughout workday. • System filters changed about every hour. • System was pumping at a rate of 411 gpm at 0914 and 368 gpm at 1640.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 06-15-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
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05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
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05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: <u>208,371 gal.</u>
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	Total: 12,205,317 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder monitored placement of bridging layer in Pond 1.
- Golder observed over-ex of saturated material from Pond 1.
- Golder observed clearing of vegetation from shoreline slope and cutting slope down to sub-grade for textile.
- Golder observed grading of shoreline slope for installation of geotextile.
- Golder monitored installation of 13 panels of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder observed placement of a 10 to 12 inch loose lift of on-site structural fill.
- Golder observed compaction of placed structural fill to a 8 to 9 inch compacted lift using a smooth drum roller.
- Golder observed dewatering of Ponds 1 and 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

Ryan superintendent and Golder CQA met with the Monroe County Road Commission Inspector to check the culvert ditch and installed 12 inch RCP for approval for backfilling of the ditch and culvert. Inspector said we could proceed with backfilling and construction of the new access road, he also reminded Ryan they were responsible to repair cracks to the existing road caused by construction equipment used to excavate ditch and any additional damage that may be caused during construction of the access road.

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



On-site structural fill stockpile stripped of vegetation, looking southwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Grading shoreline slope, looking north.

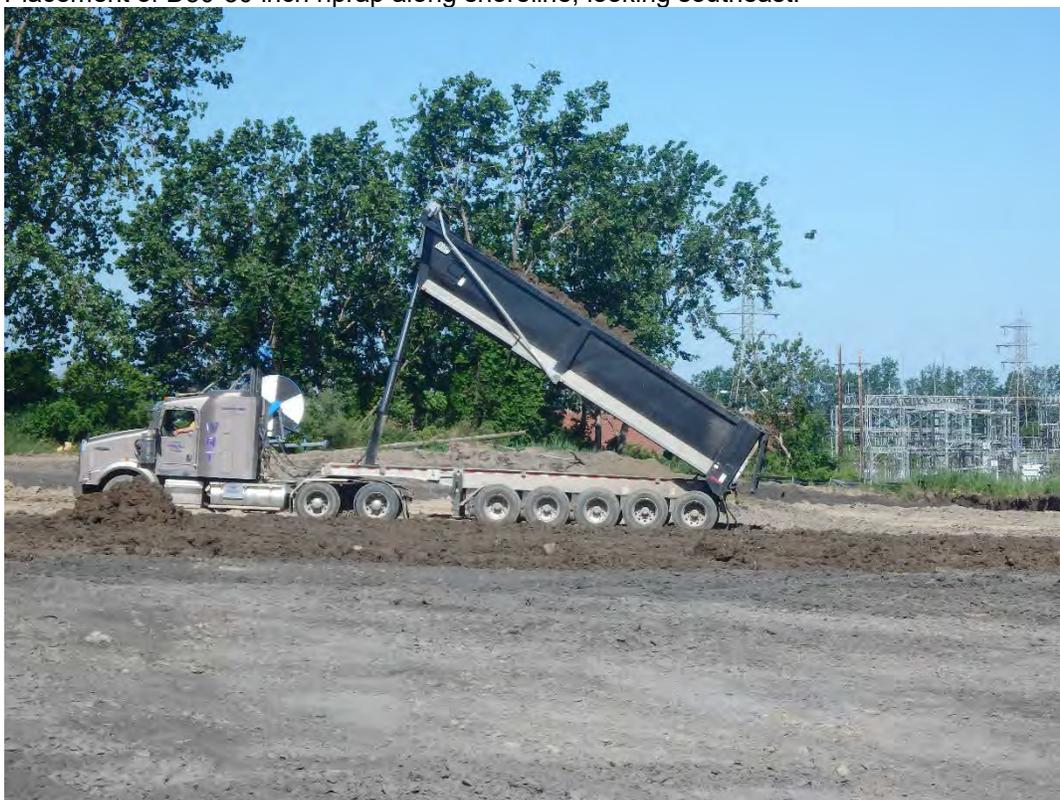


Placement of D50/2 inch cushion layer along shoreline, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placement of D50-30 inch riprap along shoreline, looking southeast.



Structural fill hauled to chemical ponds, looking southeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placement of 12 inch loose lift of structural fill at chemical ponds, looking south.



Compaction of placed structural fill at chemical ponds, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 6/26/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1930
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS			
Weather (AM):	Sunny	Temperature:	69
Weather (PM):	Mostly Sunny	Temperature:	88
Precipitation:	None	Wind:	SE 1-9 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
<p>Work performed while Golder was onsite:</p> <p>Ryan Central -2 Foreman, 7 Operators</p> <ul style="list-style-type: none"> • Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day. • Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials. • Continued over-excavation along the toe of Pond 1 west slope to remove saturated materials. Material hauled and placed to dry west of Pond 2. • Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope. • Proof rolled western third of the Chemical Ponds grading area using loaded Volvo A45G haul truck. • Loaded onsite structural fill from stockpile into five on-road dump trucks for haul too and stockpiling in western end of the chemical ponds grading area. • Received delivery of D50-30 inch riprap and D50-2 inch cushion layer. <p>ProAct Services – 1 Foreman and 1 Laborer</p> <ul style="list-style-type: none"> • ProAct onsite at 0700 to startup dewatering system in Pond 2. • Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M. • System back flushed several times throughout workday. • System filters changed about every hour. • System was pumping at a rate of 516 gpm at 0802 and 229 gpm at 1402. <p><u>Summary of Dewatering through 06-15-19:</u></p>

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

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05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	Total: 12,386,532 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder monitored placement of bridging layer in Pond 1.
- Golder observed over-ex of saturated material from Pond 1.
- Golder monitored installation of 5 panels of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder monitored proof roll of the western third of the Chemical Pond Grading area. Proof roll completed using a fully loaded Volvo A45G haul truck. Observation showed no pumping, deflection or rutting in rolled area.
- Golder observed dewatering of Ponds 1 and 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

Bi-Weekly construction meeting with CEC, Ryan, ProAct and Golder.

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Proof roll of compacted onsite structural fill placed in Chemical Ponds Grading Area, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Filter change on the dewatering system for Pond 2, looking northeast.



Removal of saturated material from along the west side of Pond 1, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Loading onsite structural fill for stockpiling in the Chemical Ponds Grading area, looking west.

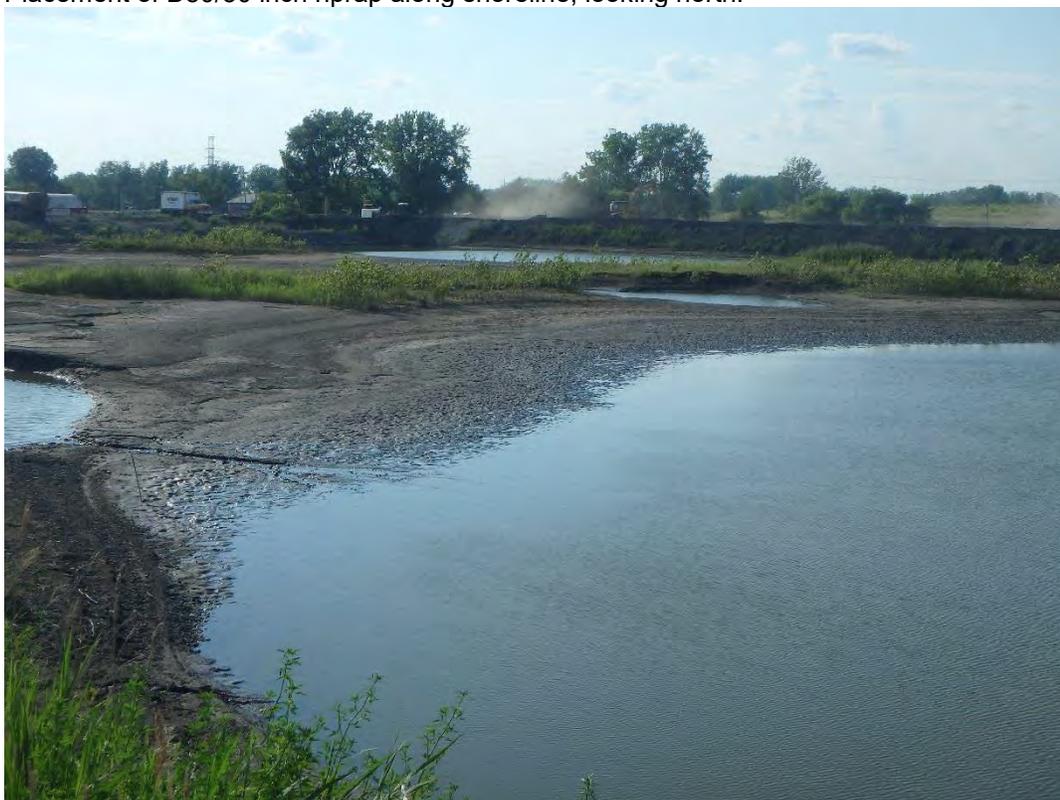


Geotextile and D50/2 inch cushion layer along shoreline, looking southeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placement of D50/30 inch riprap along shoreline, looking north.



Overview and water level of Pond 2, looking northwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 6/27/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1945
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Partly Cloudy	Temperature: 64
Weather (PM): Sunny	Temperature: 87
Precipitation: None	Wind: E 0-4 mph

EQUIPMENT ON SITE
1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
Work performed while Golder was onsite:
Ryan Central -2 Foreman, 7 Operators
<ul style="list-style-type: none">• Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day.• Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials.• Continued clearing vegetation from shoreline slope.• Continued cutting shoreline slope to sub-grade and e for installation of geotextile.• Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope.• Loaded structural fill from existing onsite stockpiles into two on-road dump trucks for haul too and placement in Pond 1 for bridging layer.• Received delivery of D50-30 inch riprap and D50-2 inch cushion layer.• Received and off-loaded 44 rolls of 8 oz. geotextile.
ProAct Services – 1 Foreman and 1 Laborer
<ul style="list-style-type: none">• ProAct onsite at 0700 to startup dewatering system in Pond 2.• Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.• System back flushed several times throughout workday.• System filters changed about every hour.• System was pumping at a rate of 396 gpm at 0910, 249 gpm at 1347 and 411 gpm at 1730.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 06-15-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
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05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
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06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: <u>216,650 gal.</u>
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	Total: 12,603,182 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder monitored placement of bridging layer in Pond 1.
- Golder monitored installation of 4 panels of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder inventoried 44 rolls of 8 oz. geotextile delivered and off-loaded.
- Golder observed dewatering of Ponds 1 and 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

Michelle Marion and Brad Runkel of CEC onsite to review CQA procedures and site inspection with Golder CQA David Hutchinson.

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Chemical Ponds 1st lift of structural fill after previous night's rain, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placing bridging layer in Pond 1, looking north.

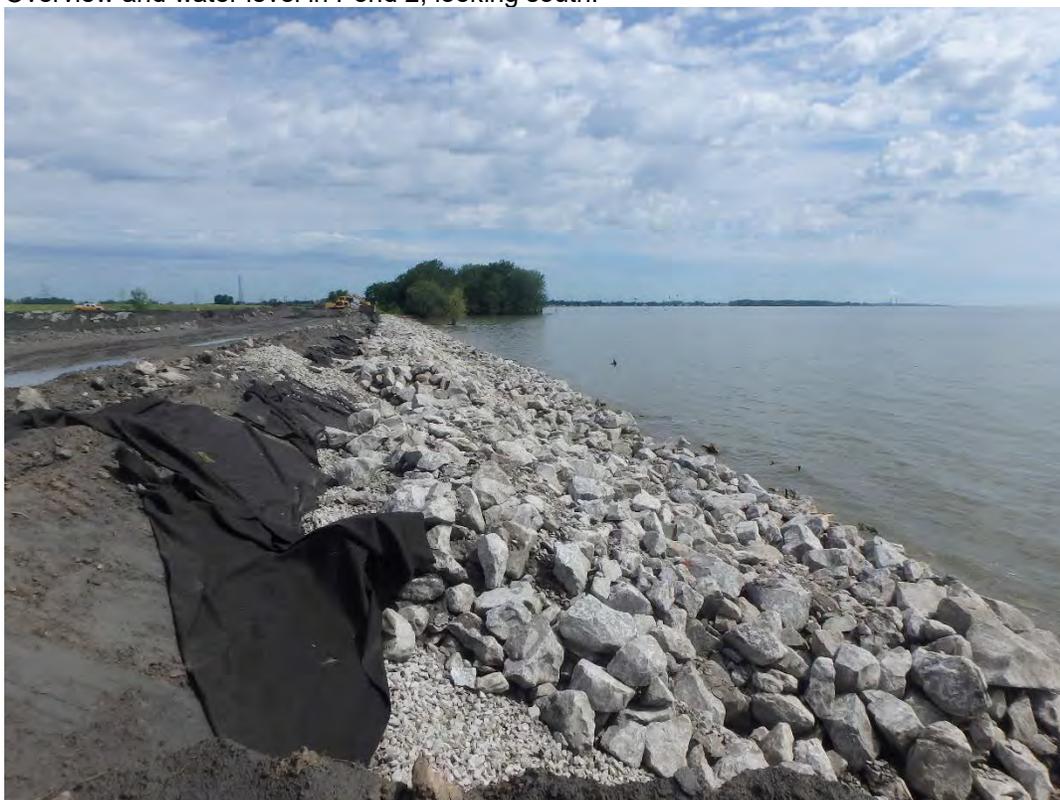


General fill from grading of shoreline being placed into Pond 1, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Overview and water level in Pond 2, looking south.



Overview of shoreline from south end, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Cutting shoreline for installation of riprap, looking north.



Discharge water from Pond 2, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 6/28/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1945
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS			
Weather (AM):	Mostly Sunny	Temperature:	68
Weather (PM):	Mostly Cloudy	Temperature:	91
Precipitation:	Rain	Wind:	W 2-4 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
Work performed while Golder was onsite:
Ryan Central -2 Foreman, 6 Operators
<ul style="list-style-type: none">• Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day.• Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials from re-grading work area.• Began placement of geotextile across floor of Pond 1 prior to placement of bridging layer.• Continued clearing vegetation from shoreline slope.• Continued cutting shoreline slope to sub-grade and e for installation of geotextile.• Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope.• Received delivery of D50-30 inch riprap and D50-2 inch cushion layer.• Received and off-loaded 45 rolls of 8 oz. geotextile.• Received and off-loaded 24 rolls of 8 oz. geotextile.
ProAct Services – 1 Foreman and 1 Laborer
<ul style="list-style-type: none">• ProAct onsite at 0700 to startup dewatering system in Pond 2.• Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in P.M.• System back flushed several times throughout workday.• System filters changed about every hour.• System was pumping at a rate of 395 gpm at 0835, 387 gpm at 1402 and 346 gpm at 1816.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 06-15-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: <u>208,921 gal.</u>
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	Total: 12,812,103 gal.

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of Mirafi 1160N geotextile across floor of Pond 1 prior to placement of the bridging layer.
- Golder monitored placement of bridging layer in Pond 1 using material from regrading of work area.
- Golder monitored installation of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder inventoried 45 rolls of 8 oz. geotextile delivered and off-loaded.
- Golder inventoried 24 rolls of 40mil HDPE Micro-Spike Geomembrane.
- Golder observed dewatering of Ponds 1 and 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Off-loading 40mil geomembrane, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placement of textile, 2 inch cushion material and 30 inch riprap along shoreline, looking south.



Off-loading of 8 oz. geotextile, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Installation of geotextile in Pond 1 prior to bridging layer, looking south.



Geotextile installed across floor of Pond 1, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placement of bridging layer above geotextile in Pond 1, looking east.



Overview and water level of Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 6/29/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1530
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Partly Cloudy	Temperature: 69
Weather (PM): Mostly Cloudy	Temperature: 88
Precipitation: None	Wind: W 0-8 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
<p>Work performed while Golder was onsite:</p> <p>Ryan Central -2 Foreman, 7 Operators</p> <ul style="list-style-type: none"> Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day. Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials. Began placement of geotextile across floor of Pond 1 prior to placement of bridging layer. Continued clearing vegetation from shoreline slope, hauled to Pond 1. Continued cutting shoreline slope to sub-grade and e for installation of geotextile. Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope. <p>ProAct Services – 1 Foreman and 1 Laborer</p> <ul style="list-style-type: none"> ProAct onsite at 0700 to startup dewatering system in Pond 2. Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in P.M. System back flushed several times throughout workday. System filters changed about every hour. System was pumping at a rate of 327 gpm at 0745 and 286 gpm at 1249.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 06-15-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: <u>135,907 gal.</u>
			Total: 12,948,010 gal.

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of Mirafi HP570 geotextile across floor of Pond 1 prior to placement of the bridging layer.
- Golder monitored placement of bridging layer in Pond 1 using material from regrading of work area, clearing and grading of shoreline.
- Golder monitored installation of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder observed dewatering of Ponds 1 and 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Clearing vegetation along shoreline, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Cutting shoreline slope to sub-grade, looking east.



Placement of D50/2 inch cushion layer along shoreline, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Installation of geotextile in Pond 1 prior to bridging layer, looking east.



Overview of bridging layer in Pond 1, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Textile placed along shoreline for D50/2 inch cushion layer, looking north.



Overview and water level of Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/01/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS			
Weather (AM):	Mostly Sunny	Temperature:	70
Weather (PM):	Mostly Sunny	Temperature:	88
Precipitation:	None	Wind:	E 3-9 mph

EQUIPMENT ON SITE
1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
<p>Work performed while Golder was onsite:</p> <p>Ryan Central -2 Foreman, 7 Operators</p> <ul style="list-style-type: none"> • Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day. • Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials. • Began placement of geotextile across floor of Pond 1 prior to placement of bridging layer. • Continued regrading of CCR in and around Pond 1. • Continued clearing vegetation from shoreline slope, hauled to Pond 1. • Continued cutting shoreline slope to sub-grade and e for installation of geotextile. • Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope. • Began cutting the access road east of Pond 2 down to sub-grade. • Excavated anchor trench for shoreline geotextile east of Pond 2, placed textile in trench and backfilled. • Proof rolled 1st lift of onsite structural fill placed in the Chemical Ponds work area. • Received delivery of 24 rolls of 40mil geomembrane. • Received delivery of D50/30 inch Rip-Rap. • Water truck for dust control. <p>ProAct Services – 1 Foreman and 1 Laborer</p> <ul style="list-style-type: none"> • ProAct onsite at 0700 to startup dewatering system in Pond 2. • Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M. • System back flushed several times throughout workday. • System filters changed about every hour.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

- System was pumping at a rate of 341 gpm at 1000 and 212 gpm at 1604.

Summary of Dewatering through 07-01-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>			
07/01/19: <u>175,586 gal.</u>			
Total: 13,123,596 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of Mirafi HP570 geotextile across floor of Pond 1 prior to placement of the bridging layer.
- Golder monitored placement of bridging layer in Pond 1 using material from regrading of work area, clearing and grading of shoreline.
- Golder monitored installation of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder observed placement of 16 oz. geotextile used for shoreline into anchor trench east of Pond 2 and backfill.
- Golder monitored proof roll on 1st lift of onsite structural fill placed in the Chemical Ponds grading area. Proof roll was completed using a fully loaded Volvo A40G haul truck, no deflection or pumping observed during testing.
- Golder inventoried 24 rolls of 40mil HDPE Geomembrane delivered by semi-trailer and offloaded using 349F excavator. All rolls on approval list with certifications.
- Golder observed dewatering of Ponds 1 and 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF PROBLEMS AND RESOLUTIONS
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None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature: 
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PHOTOGRAPHS

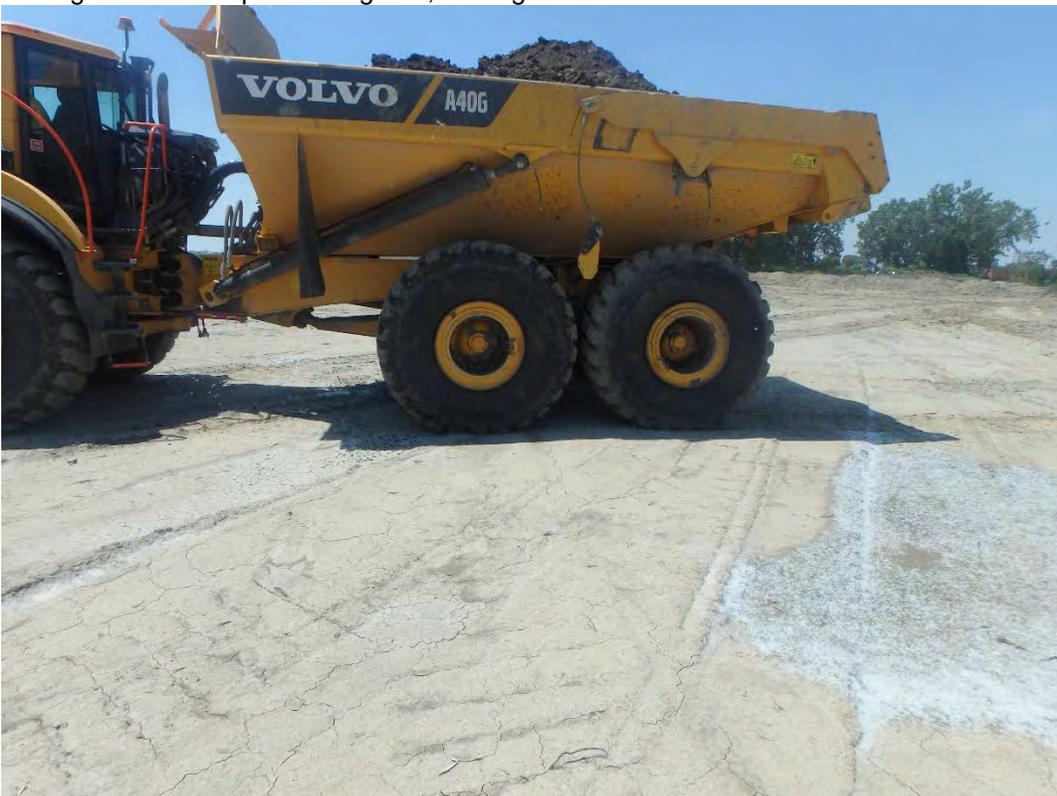


Off-loading 40mil geomembrane, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Cutting shoreline slope to sub-grade, looking south.



Proof roll of onsite structural fill placed over chemical ponds, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavating access road east of Pond 2 down to sub-grade, looking north.



Excavating anchor trench for shoreline geotextile, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Shoreline geotextile in anchor trench with backfill.



Overview and water level of Pond 2, looking northeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title: J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/02/2019
Client: Consumers Energy	Site/Location: Erie, MI	
GAI Personnel: David Hutchinson	Arrival/Departure Time: 0630/2000	
Contractor(s): Ryan Central Inc. ProAct	Contractor(s) Rep: John Johnson (Ryan Central) Guillermo Arredondo (ProAct)	

SITE CONDITIONS

Weather (AM): Mostly Cloudy	Temperature: 71
Weather (PM): Mostly Cloudy	Temperature: 92
Precipitation: None	Wind: SE 1-12 mph

EQUIPMENT ON SITE

1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 7 Operators

- Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day.
- Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials.
- Continued placement of geotextile across floor of Pond 1 prior to placement of bridging layer.
- Continued regrading of CCR in and around Pond 1.
- Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope.
- Continued cutting the access road east of Pond 2 down to sub-grade.
- Excavated anchor trench for shoreline geotextile east of Pond 2, placed textile in trench and backfilled.
- Began load-out of chip pile into on-road dumps for disposal offsite.
- Received delivery of 8 rolls of Mirafi HP570 geotextile.
- Received delivery of D50/2 inch cushion layer and D50/30 inch Rip-Rap.
- Water truck for dust control.

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed several times throughout workday.
- System filters changed about every hour.
- System was pumping at a rate of 190 gpm at 0817 and 204 gpm at 1201.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-02-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>			
07/01/19: 175,586 gal.			
07/02/19: <u>129,459 gal.</u>			
Total: 13,253,055 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of Mirafi HP570 geotextile across floor of Pond 1 prior to placement of the bridging layer.
- Golder monitored placement of bridging layer in Pond 1 using material from regrading of work area, clearing and grading of shoreline.
- Golder monitored installation of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder observed placement of 16 oz. geotextile used for shoreline into anchor trench east of Pond 2 and backfill.
- Golder observed dewatering of Ponds 1 and 2.
- Golder observed loading of chip pile for disposal at offsite facility.
- Golder observed delivery of 8 rolls of Mirafi HP570 Geotextile for use in bridging of ponds.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF PROBLEMS AND RESOLUTIONS

John Johnson (Ryan) and David Hutchinson contacted Rachel Thompson (CEC) about the design for shoreline wrap in the north of Pond 1. Let Rachel know that the transformer located northeast of Pond 1 fell in the middle of the cut needed for riprap per the drawings and how CEC wanted to proceed. Tiffany Johnson (Golder) contacted David Hutchinson (Golder) after talking to Rachel about our concerns about the transformer. Ryan and Golder site personnel were told to field fit the cut and riprap to stay clear of the transformer that would remain in place.

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Deployment of geotextile and placement of bridging layer in Pond 1, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



CCR regrading for bridging layer in Pond 1, looking east.



Textile deployed in Pond 1 for bridging layer, looking southeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Undercut along the north section of shoreline for riprap placement, looking south.



D50/2 inch cushion layer being placed atop textile along shoreline, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Dust control in Pond 1, looking east.



Overview and water level of Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/03/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Mostly Cloudy	Temperature: 71
Weather (PM): Partly Sunny	Temperature: 85
Precipitation: None	Wind: W 0-5 mph

EQUIPMENT ON SITE

1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 7 Operators

- Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day.
- Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials.
- Continued placement of geotextile across floor of Pond 1 prior to placement of bridging layer.
- Continued regrading of CCR in and around Pond 1.
- Continued placement 16 oz. geotextile, D50-2 inch cushion layer and D50-30 inch riprap onto shoreline slope.
- Continued load-out of chip pile into on-road dumps for disposal offsite.
- Water truck for dust control.

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in P.M.
- System back flushed and baker tanks power washed.
- Installed additional pumps to supply Flocculant to the intake side of pumping system before baker tanks.
- System back flushed and filters changed as needed.
- System was pumping at a rate of 192 gpm at 1840.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-02-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>			
07/01/19: 175,586 gal.			
07/02/19: 129,459 gal.			
07/03/19: 13,878 gal.			
Total: 13,268,933 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of Mirafi HP570 geotextile across floor of Pond 1 prior to placement of the bridging layer.
- Golder monitored placement of bridging layer in Pond 1 using material from regrading of Pond 1 work area.
- Golder monitored installation of 16 oz. geotextile on shoreline slope.
- Golder monitored placement of D50-2 inch cushion layer in single 6 inch lift.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder observed dewatering of Ponds 1 and 2.
- Golder observed loading of chip pile for disposal at offsite facility.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature: 
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PHOTOGRAPHS



Loading of vegetation chip pile for disposal at offsite facility, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placing D50/2 inch cushion layer on shoreline, looking east.



North shoreline wraparound, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Pond 1 bridging layer being placed atop geotextile, looking west.



Installing equipment to supply Flocculant to supply side of Pond 2 dewatering system, looking southeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Overview of Pond 1, looking northeast.



Overview and water level of Pond 2, looking northwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/05/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Mostly Sunny	Temperature: 71
Weather (PM): Mostly Cloudy	Temperature: 90
Precipitation: None	Wind: W 0-5 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
Work performed while Golder was onsite:
Ryan Central -2 Foreman, 3 Operators
<ul style="list-style-type: none">• Dewatering Pond 1 into Pond 2 with a 6-inch pump at various times throughout the day.• Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials.• Continued placement of geotextile across floor of Pond 1 prior to placement of bridging layer.• Continued cutting center dyke/access road and east access roads down, material used for bridging layer in Pond 1.• Began removing utility pipe running from southeast corner of Pond 2 to the Chemical Ponds.• Continued regrading of CCR in and around Pond 1.• Continued placement D50-30 inch riprap onto shoreline slope.• Continued clearing vegetation from shoreline southeast of Pond 2.• Water truck for dust control.
ProAct Services – 1 Foreman and 1 Laborer
<ul style="list-style-type: none">• ProAct onsite at 0700 to startup dewatering system in Pond 2.• Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in P.M.• System back flushed and filters changed as needed.• System was pumping at a rate of 231 gpm at 1127 and 207 gpm at 1600.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-05-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>			
07/01/19: 175,586 gal.			
07/02/19: 129,459 gal.			
07/03/19: 13,878 gal.			
07/04/19: None			
07/05/19: 137,112 gal.			
Total: 13,406,045 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed cutting of the center dyke/access and east access roads down, material removed placed in Pond 1 for use in bridging layer.
- Golder observed removal of approximately 75 feet of the utility pipe that runs from the southeast corner of Pond 2 too Chemical Ponds.
- Golder observed placement of Mirafi HP570 geotextile across floor of Pond 1 prior to placement of the bridging layer.
- Golder monitored placement of bridging layer in Pond 1 using material from regrading of Pond 1 work area.
- Golder observed clearing of vegetation from shoreline for the south wrap around.
- Golder monitored placement of D50-30 inch riprap along shoreline slope.
- Golder observed dewatering of Ponds 1 and 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Clearing vegetation from shoreline east of Pond 2, looking south.



Excavating center dyke/access road down to grade, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Pond 1 bridging layer being placed atop geotextile, looking east.



Overview and water level of Pond 2, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Access road to the southeast of Pond 2 cut to sub-grade, looking southeast.



Removing utility pipe running from southeast corner of Pond 2 too Chemical Ponds, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/06/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1530
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Mostly Sunny	Temperature: 71
Weather (PM): Mostly Cloudy	Temperature: 86
Precipitation: P.M. Rain	Wind: E 0-3 mph

EQUIPMENT ON SITE

1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 2 Operators

- Continued placement of bridging layer in single 3 foot lift working north to south in Pond 1 using onsite materials.
- Continued placement of geotextile across floor of Pond 1 prior to placement of bridging layer.
- Continued regrading of CCR in and around Pond 1.
- Cut shoreline to sub-grade east of Pond 2 and hauled material to Pond 1.
- Continued deployment of shoreline textile and D50-2 inch cushion layer onto shoreline slope.
- Removed six inch pump from Pond 1.
- Water truck for dust control.

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.
- System was pumping at a rate of 231 gpm at 1000 and 212 gpm at 1200.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-06-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>			
07/01/19: 175,586 gal.			
07/02/19: 129,459 gal.			
07/03/19: 13,878 gal.			
07/04/19: None			
07/05/19: 137,112 gal.			
07/06/19: 95,100 gal.			
Total: 13,501,145 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of Mirafi HP570 geotextile across floor of Pond 1 prior to placement of the bridging layer.
- Golder monitored placement of bridging layer in Pond 1 using material from regrading of Pond 1 work area.
- Golder observed cutting of shoreline east of Pond 2 down to sub-grade and hauling material to Pond 1 for use in bridging layer.
- Golder monitored deployment of textile and placement of D50-2 inch cushion layer along shoreline slope east of Pond 2.
- Golder observed pumping of Pond 2.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson
--

Signature:



PHOTOGRAPHS



Cutting of shoreline east of Pond 2 to sub-grade, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Textile deployed along shoreline, looking south.



Placing D50-2 inch cushion layer atop textile on shoreline, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Pond 1 bridging layer being placed, looking east.



Overview of bridging layer in Pond 1, looking northeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Overview and water level of Pond 2, looking northwest.



Re-grading of CCR in Pond 1 work area, looking northwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/08/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS			
Weather (AM):	Sunny	Temperature:	61
Weather (PM):	Mostly Sunny	Temperature:	82
Precipitation:	None	Wind:	E 3-12 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
Work performed while Golder was onsite:
Ryan Central -2 Foreman, 6 Operators
<ul style="list-style-type: none">Continued regrading of CCR in and around Pond 1.Continued placement of D50/30 inch riprap along shoreline east of Pond 2.Graded access road east of Pond 2.Backfilled culvert for new entrance.Removed perimeter fence for new site entrance road.Proof rolled bridging layer in northern section of Pond 1.Rolled tested area of Pond 1 using smooth drum roller.Received delivery of D50/30 inch riprap.Received delivery of 40mil geomembrane.Water truck for dust control.
ProAct Services – 1 Foreman and 1 Laborer
<ul style="list-style-type: none">ProAct onsite at 0700 to startup dewatering system in Pond 2.Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.System back flushed and filters changed as needed.System was pumping at a rate of 310 gpm at 0839 and 225 gpm at 1356.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

Week 1

05/06/19: 281,988 gal.
 05/07/19: 387,165 gal.
 05/08/19: 405,104 gal.
 05/09/19: 404,705 gal.
 05/10/19: 410,498 gal.
 05/11/19: 64,691 gal.

Week 2

05/13/19: 399,021 gal.
 05/14/19: 484,537 gal.
 05/15/19: 486,473 gal.
 05/16/19: 481,499 gal.
 05/17/19: 484,331 gal.
 05/18/19: 249,566 gal.

Week 3

05/20/19: 328,687 gal.
 05/21/19: 402,720 gal.
 05/22/19: 487,716 gal.
 05/23/19: 408,516 gal.
 05/24/19: 484,613 gal.
 05/25/19: None

Week 4

05/27/19: Holiday
 05/28/19: 386,176 gal.
 05/29/19: 468,094 gal.
 05/30/19: 357,569 gal.
 05/31/19: 161,965 gal.
 06/01/19: None

Week 5

06/03/19: 185,365 gal.
 06/04/19: 409,662 gal.
 06/05/19: 345,122 gal.
 06/06/19: 311,007 gal.
 06/07/19: 276,790 gal.
 06/08/19: 65,064 gal.

Week 6

06/10/19: 175,022 gal.
 06/11/19: 184,365 gal.
 06/12/19: 178,934 gal.
 06/13/19: 147,219 gal.
 06/14/19: 13,156 gal.
 06/15/19: 142,063 gal.

Week 7

06/17/2019: 247,813 gal.
 06/18/2019: 68,510 gal.
 06/19/2019: 215,872 gal.
 06/20/2019: 207,117 gal.
 06/21/2019: 200,874 gal.
 06/22/2019: 102,207 gal.

Week 8

06/24/2019: 218,008 gal.
 06/25/2019: 208,371 gal.
 06/26/2019: 181,215 gal.
 06/27/2019: 216,650 gal.
 06/28/2019: 208,921 gal.
 06/29/2019: 135,907 gal.

Week 9

07/01/19: 175,586 gal.
 07/02/19: 129,459 gal.
 07/03/19: 13,878 gal.
 07/04/19: None
 07/05/19: 137,112 gal.
 07/06/19: 95,100 gal.

Week 10

07/08/19: 107,894 gal.
Total: 13,609,039 gal.

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of D50/30 inch riprap along shoreline slope east of Pond 2.
- Golder observed grading of CCR in the Pond 1 work area.
- Golder observed removal of perimeter fence north of Pond 1 for new access road to be constructed.
- Golder observed backfill of access road culvert using class IIIA sand placed to a minimum of 12 inches along sides and 4 inches above culvert.
- Golder monitored proof roll of northern section of Pond 1 using a loaded Volvo A40G haul truck. Area tested and passed within the following Certification points:
 Cert. 1001 to 1036 Cert. 1036 to 1034 Cert. 1034 to 1021 Cert. 1021 to 1027
 Cert. 1027 to 1521 Cert. 1521 to 1001
- Golder observed smooth drum roller in static mode roll tested area within Pond 1.
- Golder observed pumping of Pond 2 through filtering system into discharge channel.
- Golder observed delivery of D50/30 inch riprap for shoreline.
- Golder observed and inventoried 4 rolls of 40mil HDPE geomembrane delivered.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:

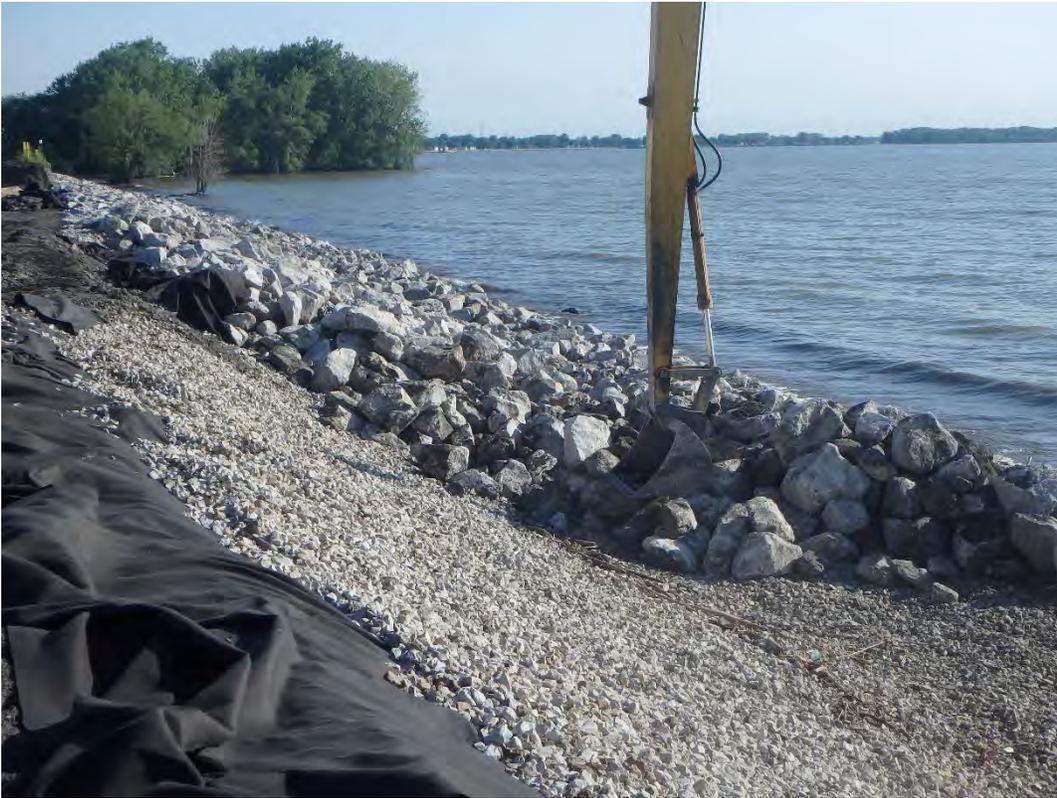


PHOTOGRAPHS



Offload of geomembrane, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placing D50/30 inch riprap along shoreline, looking northeast.



Overview/water level Pond 2, looking northern.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placement of class IIIA sand for backfill over access road culvert, looking east.



Removing fence for new entrance access road, looking southeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Proof roll in Pond 1 using loaded A40G haul truck, looking southwest.



Smooth drum rolling bridging layer in Pond 1, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title: J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/09/2019
Client: Consumers Energy	Site/Location: Erie, MI	
GAI Personnel: David Hutchinson	Arrival/Departure Time: 0630/2000	
Contractor(s): Ryan Central Inc. ProAct	Contractor(s) Rep: John Johnson (Ryan Central) Guillermo Arredondo (ProAct)	

SITE CONDITIONS

Weather (AM): Sunny	Temperature: 62
Weather (PM): Sunny	Temperature: 83
Precipitation: None	Wind: E 2-8 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators

- Continued regrading of CCR in and around Pond 1.
- Continued placement of D50/30 inch riprap along shoreline to fill voids.
- Cutting Pond 1's north and east perimeter roads down to sub-grade.
- Began building of temporary construction access road northwest of Pond 1.
- Began placement of bridging layer in Pond 2.
- Received delivery of D50/30 inch riprap.
- Water truck for dust control.

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.
- System was pumping at a rate of 187 gpm at 0900 and 212 gpm at 1200.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>		
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.		
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.		
07/03/19: 13,878 gal.	Total: 13,653,046 gal.		
07/04/19: None			
07/05/19: 137,112 gal.			
07/06/19: 95,100 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of D50/30 inch riprap along shoreline slope to fill voids.
- Golder observed grading of CCR in the Pond 1 work area.
- Golder observed building of a temporary access road for import from Lake Erie RD. into Pond 1.
- Golder observed cutting of the perimeter roads on north and east sides of Pond 1.
- Golder observed placement of single 3 foot bridging layer lift using CCR in Pond 2.
- Golder observed pumping of Pond 2 through filtering system into discharge channel.
- Golder observed delivery of D50/30 inch riprap for shoreline.
- Golder observed use of water truck for dust control on site.
- Golder observed Ryan surveyor onsite too shoot the floor of Pond 2 and bridging layer in Pond 1 by drone.

SUMMARY OF SURVEYOR'S ACTIVITIES

Ryan surveyor onsite to shoot floor of Pond 2 and bridging layer in Pond 1.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF PROBLEMS AND RESOLUTIONS
--

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:

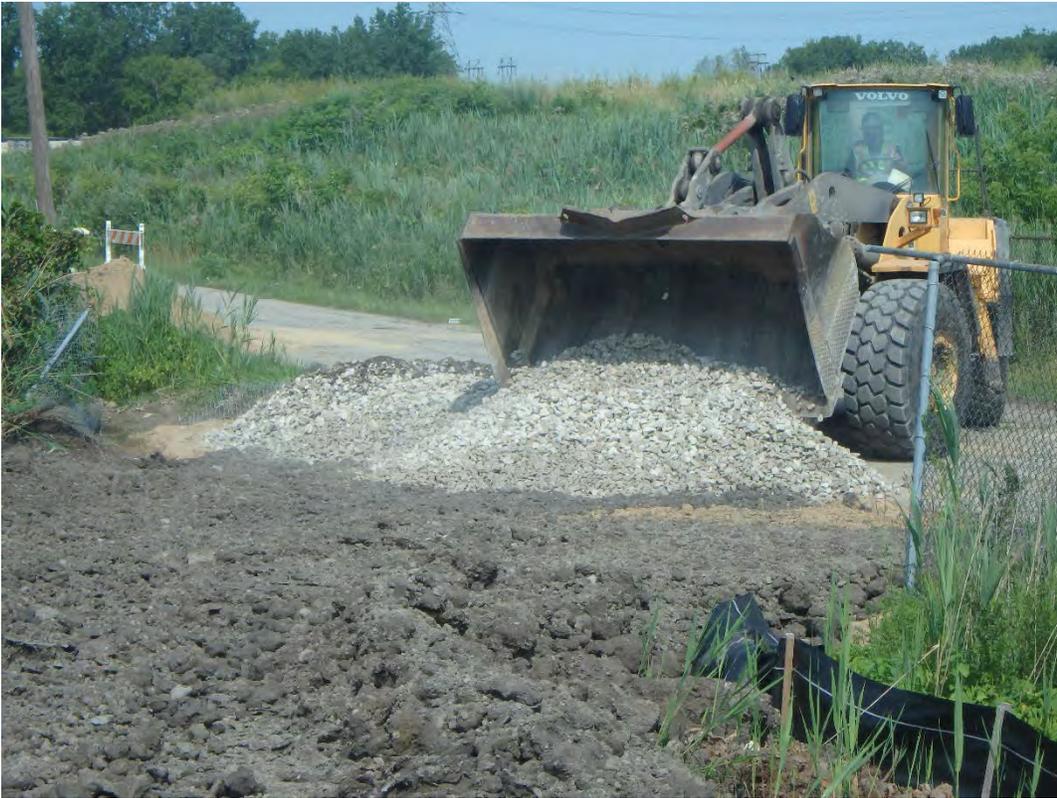


PHOTOGRAPHS



Overview of shoreline riprap, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Construction of temporary access road into Pond 1 from Lake Erie RD., looking northwest.



Excavating of Pond 1's east perimeter road, looking southeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placing bridging layer in Pond 2, looking south.



Overview/water level in Pond 2, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



South end of shoreline riprap, looking south.



Overview of bridging layer in Pond 1, looking northeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title: J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/10/2019
Client: Consumers Energy	Site/Location: Erie, MI	
GAI Personnel: David Hutchinson	Arrival/Departure Time: 0630/2000	
Contractor(s): Ryan Central Inc. ProAct	Contractor(s) Rep: John Johnson (Ryan Central) Guillermo Arredondo (ProAct)	

SITE CONDITIONS

Weather (AM): Sunny	Temperature: 62
Weather (PM): Partly Cloudy	Temperature: 83
Precipitation: None	Wind: E 2-8 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators

- Continued placement of D50/30 and 8 x 16 inch riprap along shoreline to fill voids.
- Continued placement of bridging layer in Pond 2.
- Excavated and backfilled shoreline textile anchor trench.
- Placed shoreline textile into anchor trench.
- Proof rolled remaining Pond 1 bridging area not previously tested.
- Received delivery of D50/30 and 8 x 16 inch riprap.
- Water truck for dust control.

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.
- System was pumping at a rate of 240 gpm at 1135 and 201 gpm at 1330.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
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05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>		
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.		
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.		
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.		
07/04/19: None	Total: 13,679,678 gal.		
07/05/19: 137,112 gal.			
07/06/19: 95,100 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed excavation of anchor trench for shoreline textile, placement of textile into anchor trench and backfill with CCR removed during excavation of trench. Trench backfill compacted by tamping with excavator bucket.
- Golder observed placement of D50/30 and 8 x 16 inch riprap along shoreline slope to fill voids.
- Golder observed placement of single 3 foot bridging layer lift using CCR in Pond 2.
- Golder observed pumping of Pond 2 through filtering system into discharge channel.
- Golder monitored proof roll of remaining area of Pond 1 not previously tested using a Volvo A40G haul truck. Area tested and passed within the following Certification points:
 Cert. 1036 to 1034 Cert. 1034 to 1021 Cert. 1021 to 1027 Cert. 1027 to 1063
 Cert. 1063 to 1055 Cert. 1055 to 1036
- Golder observed delivery of D50/30 and 8 x 16 inch riprap for shoreline.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF PROBLEMS AND RESOLUTIONS
--

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Ryan checking grade of riprap along shoreline, looking northeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavating anchor trench for shoreline textile, looking south.



Filling voids in shoreline riprap using 8x16 inch riprap, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placing bridging layer in Pond 2, looking south.



Water truck used for dust control, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Proof roll of bridging layer in Pond 1.



Overview/water level of Pond 2, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/11/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Sunny	Temperature: 75
Weather (PM): Partly Sunny	Temperature: 92
Precipitation: None	Wind: E 0-5 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-Cat 963 Tracked Loader; 1-John Deere 644G Loader; 1-John Deere 850X Dozer; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 1-Cat D6T Dozer;; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators

- Continued placement of 8 x 16 inch riprap along shoreline to fill voids.
- Continued placement of bridging layer in Pond 2.
- Began deployment of textile for bridging layer in Pond 2.
- Clearing vegetation along south end of shoreline to place riprap.
- Cutting perimeter road on west side of Pond 1 down, material hauled to Pond 2 for bridging layer.
- Inspection of silt fence and repair as needed.
- Received delivery of 8 x 16 inch riprap.
- Water truck for dust control.

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0800 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.
- System was pumping at a rate of 185 gpm at 1403 and 196 gpm at 1530.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>		
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.		
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.		
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.		
07/04/19: None	07/11/19: 27,943 gal.		
07/05/19: 137,112 gal.	Total: 13,706,921 gal.		
07/06/19: 95,100 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of 8 x 16 inch riprap along shoreline slope to fill voids.
- Golder observed clearing of vegetation from along shore line east of discharge channel for placement of riprap down to headframe for culverts from lake to discharge channel.
- Golder observed placement of single bridging layer using CCR in Pond 2.
- Golder monitored deployment of Mirafi 1160N geotextile in Pond 2 prior to placement of bridging layer.
- Golder observed excavation of perimeter road west of Pond 2 down to about 2 feet above sub-grade and hauling material to Pond 2 for use in bridging layer.
- Golder observed pumping of Pond 2 through filtering system into discharge channel.
- Golder assisted in silt fence inspection and observed repairs as needed.
- Golder collected sample of 21AA for asphalt base and sent to lab for testing.
- Golder observed delivery of 8 x 16 inch riprap for shoreline.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF PROBLEMS AND RESOLUTIONS
--

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Placing 8 x 16 inch riprap to fill voids in the D50/30 inch along shoreline, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Clearing vegetation along shoreline southeast of Pond 2, looking south.



Deploying textile for bridging layer in Pond 2.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placing bridging layer in Pond 2, looking west.



Monitoring well to be lowered Pond 1, looking northeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Overview/water level of Pond 2, looking northwest.



Overview/water level of Pond 2, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title: J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/12/2019
Client: Consumers Energy	Site/Location: Erie, MI	
GAI Personnel: David Hutchinson	Arrival/Departure Time: 0630/2000	
Contractor(s): Ryan Central Inc. ProAct	Contractor(s) Rep: John Johnson (Ryan Central) Guillermo Arredondo (ProAct)	

SITE CONDITIONS

Weather (AM): Sunny	Temperature: 61
Weather (PM): Partly Cloudy	Temperature: 88
Precipitation: None	Wind: W 0-9 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators

- Continued placement shoreline textile, D50/2 inch cushion layer and D50/30 inch riprap along shoreline southeast of Pond 2.
- Continued placement of bridging layer in Pond 2.
- Began deployment of textile for bridging layer in Pond 2.
- Cutting dyke between Pond 1 and 2 down, material hauled to Pond 2 for bridging layer.
- Excavated and removed standpipe in southwest corner of Pond 1.
- Received delivery of D50/30 inch riprap.
- Water truck for dust control.
- Mobilized one Cat D6 dozer.
- Demobilized one Volvo A45G haul truck

ProAct Services – 1 Foreman and 1 Laborer

- ProAct onsite at 0800 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.
- System was pumping at a rate of 172 gpm at 0830.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
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06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>		
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.		
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.		
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.		
07/04/19: None	07/11/19: 27,943 gal.		
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.		
07/06/19: 95,100 gal.	Total: 13,725,277 gal.		

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed deployment of textile, placement of D50/2 inch cushion layer and D50/30 inch riprap along shoreline southeast of Pond 2.
- Golder observed placement of single bridging layer using CCR in Pond 2.
- Golder monitored deployment of Mirafi 1160N geotextile in Pond 2 prior to placement of bridging layer.
- Golder observed excavation of dyke between Pond 1 and 2 down to about 2 feet above sub-grade and hauling material to Pond 2 for use in bridging layer.
- Golder monitored removal of the standpipe running from the southwest corner of Pond 1 to the Fore Bay.
- Golder observed pumping of Pond 2 through filtering system into discharge channel.
- Golder observed delivery of D50/30 inch riprap for shoreline.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Textile and D50/2 inch cushion layer placed on shoreline southeast of Pond 2, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



D50/30 inch riprap placed on shoreline southeast of Pond 2, looking northeast.



Deploying textile for bridging layer in Pond 2.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Removing standpipe into Fore Bay from Pond 1, looking west.



Removing standpipe running from Pond 1 to the Fore Bay, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavation of dyke between Pond's 1 and 2, looking east.



Placing bridging layer in Pond 2, looking southwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
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06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
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<u>Week 9</u>	<u>Week 10</u>		
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07/02/19: 129,459 gal.	07/09/19: 44,007 gal.		
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.		
07/04/19: None	07/11/19: 27,943 gal.		
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.		
07/06/19: 95,100 gal.	07/13/19: None		
Total: 13,725,277 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

- Construction:**
- Golder onsite documenting the construction progress.
 - Golder observed placement of D50/30 inch riprap along shoreline southeast of Pond 2.
 - Golder observed placement of 8 x 16 inch riprap to fill voids in the D50/30 inch riprap along the shoreline.
 - Golder observed placement of single bridging layer using CCR in Pond 2.
 - Golder observed additional stone from onsite stockpile added to the new construction access road.
 - Golder observed moving of the 6 inch pump and water tree to the southwest of Pond 2 for filling of water truck from the discharge channel.
 - Golder observed delivery of D50/30 inch riprap for shoreline.
 - Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES
None

SUMMARY OF PROBLEMS AND RESOLUTIONS
None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Placement of CCR for bridging layer in Pond 2, looking southwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



6 inch pump set southwest of Pond 2 along the discharge channel, looking south.



Riprap along shoreline southeast of Pond 2, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Overview of Pond 2, looking north.



Textile for bridging layer deployed in Pond 2, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/15/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Mostly Sunny	Temperature: 66
Weather (PM): Partly Sunny	Temperature: 88
Precipitation: Rain in P.M.	Wind: NW 2-9 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators

- Continue placement of 8 x 16 inch riprap to fill voids along shoreline D50/30 inch riprap.
- Began placement of structural fill in Pond 1.
- Completed removal of the utility pipe running from the southeast corner of Pond 2 to the Chemical Ponds.
- Removed additional manhole and vault from Chemical Ponds.
- Continued deployment of textile and placement of bridging layer in Pond 2.
- Began placing lift 2 over the Chemical Ponds with on-site structural fill.
- Received delivery of structural fill from off-site source.
- Water truck for dust control.

ProAct Services – 1 Foreman

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	Total: 13,725,277 gal.	
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.		
07/04/19: None	07/11/19: 27,943 gal.		
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.		
07/06/19: 95,100 gal.	07/13/19: None		

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed placement of 8 x 16 inch riprap to fill voids in the D50/30 inch riprap along the shoreline.
- Golder monitored placement of structural fill in Pond 1 beginning in the northeast corner of pond. Lift 1 was placed in a single 12 inch loose lift using a Cat D6T dozer with GPS.
- Golder monitored removal of utility pipe that runs from the southeast corner of Pond 2 to the Chemical ponds using a Cat 349F excavator.
- Golder observed removal of previously unknown manhole and vault southeast of Chemical Pond B associated with the utility pipe.
- Golder observed placement of on-site structural fill for lift 2 over the Chemical Ponds, material placed in a 12 loose lift using Cat D6T with GPS.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed receipt of structural fill by semi from off-site source.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature: 

PHOTOGRAPHS



Structural fill delivered to Pond 1 by road trains, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Removing utility pipe from Pond 2 to Chemical Ponds, looking south.



Removing utility pipe crock at the Chemical Ponds, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Manhole and crock found in southeast of Chemical Pond B.



Textile for bridging layer deployed in Pond 2, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/16/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS			
Weather (AM):	Mostly Cloudy	Temperature:	68
Weather (PM):	Mostly Cloudy	Temperature:	84
Precipitation:	Rain	Wind:	W 0-7 mph

EQUIPMENT ON SITE
1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION
Work performed while Golder was onsite:
Ryan Central -1 Foreman, 5 Operators, 2 Laborers
<ul style="list-style-type: none">Continued placement of structural fill in Pond 1.Continued deployment of textile and placement of bridging layer in Pond 2.Lowered Monitoring Wells MW-15001, MW-15002 and MW-15003. Removed bollards, well casing and cut 2 inch well pipe leaving top of pipe above final elevation.Received delivery of structural fill from off-site source.Water truck for dust control.Received 1600 feet of the Above Cap Drain Pipe.
ProAct Services – 1 Foreman
<ul style="list-style-type: none">ProAct onsite at 0700 to startup dewatering system in Pond 2.Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.System back flushed and filters changed as needed.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	Total: 13,743,129 gal.	
07/04/19: None	07/11/19: 27,943 gal.		
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.		
07/06/19: 95,100 gal.	07/13/19: None		

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder monitored placement of lift 1 in Pond 1 of structural fill, material was placed in a single 8 to 12 inch loose lift using a Cat D6T dozer with GPS.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder monitored lowering of monitoring wells MW-15001, MW-15002 and MW-15003. Ryan pulled the bollards and well casing on each of the wells. The 2 inch well pipe on MW-15001 was cut down to about 12 to 14 inches above the wells final elevation. All three wells had 3 jersey barriers placed to protect the wells until casings and bollards reinstalled after final grading.
- Golder observed receipt of structural fill by semi from off-site source.
- Golder observed dewatering of Pond 2 thru filtering system into discharge channel.
- Golder observed delivery of 1600 feet of the 8 inch Above Cap Drain Pipe.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Water truck used to moisture conditioning of placed structural fill and dust control, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Delivery of structural fill to Pond 1, looking northwest.



Placing lift of structural fill in Pond 1, looking southeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavating around MW-15001 prior to removing jersey barriers, looking southwest.



Removing the well casing from MW-15001, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/17/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Cloudy	Temperature: 73
Weather (PM): Mostly Cloudy	Temperature: 86
Precipitation: Rain	Wind: SW 0-9 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 5 Operators, 1 Laborers

- Continued deployment of textile and placement of bridging layer in Pond 2.
- Cut bridging layer of CCR in Pond 1 along west side down 6 inches.
- Cut east perimeter road down to 6 inches below access road sub-grade.
- Cutting area west of Pond 2 down to sub-grade, working from silt fence to east, material hauled to Pond 2.
- Completed filling of voids in shoreline riprap with 8 x 16 inch riprap.
- Began compacting structural fill placed in Pond 1 with an 815 compactor.
- Water truck for dust control.
- Mobilized Cat 815 Sheep Foot Compactor.

ProAct Services – 1 Foreman

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in P.M.
- System back flushed and filters changed as needed.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19: 20,293 gal.	
07/04/19: None	07/11/19: 27,943 gal.	Total: 13,763,422 gal.	
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.		
07/06/19: 95,100 gal.	07/13/19: None		

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed cutting of CCR used to construct bridging layer in the western area of Pond 1 that was at liner sub-grade. Area was cut down 6 inches below liner sub-grade to allow for placement of 6 inch lift of structural fill. Material cut was spread in a 6 inch lift across eastern half of pond.
- Golder observed cutting of the east perimeter road down to 6 inches below access road sub-grade to allow placement of 6 inch lift of structural fill.
- Golder observed cutting of the area between Pond 2 and silt fence to the west, material hauled to Pond 2 for bridging layer.
- Golder observed filling of shoreline riprap voids with 8 x 16 inch riprap.
- Golder observed compaction of structural fill in Pond 1 with a Cat 815 sheep foot compactor.
- Golder observed dewatering of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.
- Golder observed mobilization of Cat 815 Sheep Foot Compactor to site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Bridging layer being placed in Pond 2, looking south.



Placing bridging layer over textile in Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Compacting first lift of structural fill placed in Pond 1, looking south.



Excavating perimeter road east of Pond 1 down to sub-grade, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/18/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Sunny	Temperature: 65
Weather (PM): Mostly Cloudy	Temperature: 91
Precipitation: Rain	Wind: W 0-5 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator; 1-On-Road Water Truck.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators, 2 Laborers

- Continued deployment of textile and placement of bridging layer in Pond 2.
- Continue excavation of the area west of Pond 2 down to sub-grade, working west to east, material hauled to Pond 2.
- Continued placement of structural fill in Pond 1 In a single 11 to 12 inch loose lift.
- Continued compacting structural fill placed in Pond 1 with an 815 compactor.
- Installed waddles along western edge of shoreline riprap east of Pond 1.
- Received delivery of structural fill material from off-site source for Pond 1.
- Water truck for dust control.
- Mobilized On-Road water truck.

ProAct Services – 1 Foreman

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
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05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
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06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
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<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19: 20,293 gal.	
07/04/19: None	07/11/19: 27,943 gal.	07/18/19: None	
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.		
07/06/19: 95,100 gal.	07/13/19: None		
Total: 13,763,422 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed excavation of the area west of Pond 2 down to sub-grade and hauling material to Pond 2 for bridging layer.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder observed installation of waddles along the western edge of the shoreline riprap east of Pond 1.
- Golder performed Standard test on Troxler 3440 prior to density testing.
- Performed density test's SFDT-1 thru SFDT-3 on 9-inch compacted structural fill placed in Pond 1 using a Troxler 3440 Nuclear Gauge (see density test map). Compacted and tested structural fill met all specifications.
- Golder observed delivery of structural fill for Pond 1.
- Golder observed pumping of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.
- Golder observed mobilization of On-Road water truck to site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF PROBLEMS AND RESOLUTIONS
--

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Waddles installed along the western edge of shoreline riprap east of Pond 1, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavation of saturated material in the northwest corner of Pond 2, looking east.



Compacting structural fill placed in Pond 1, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



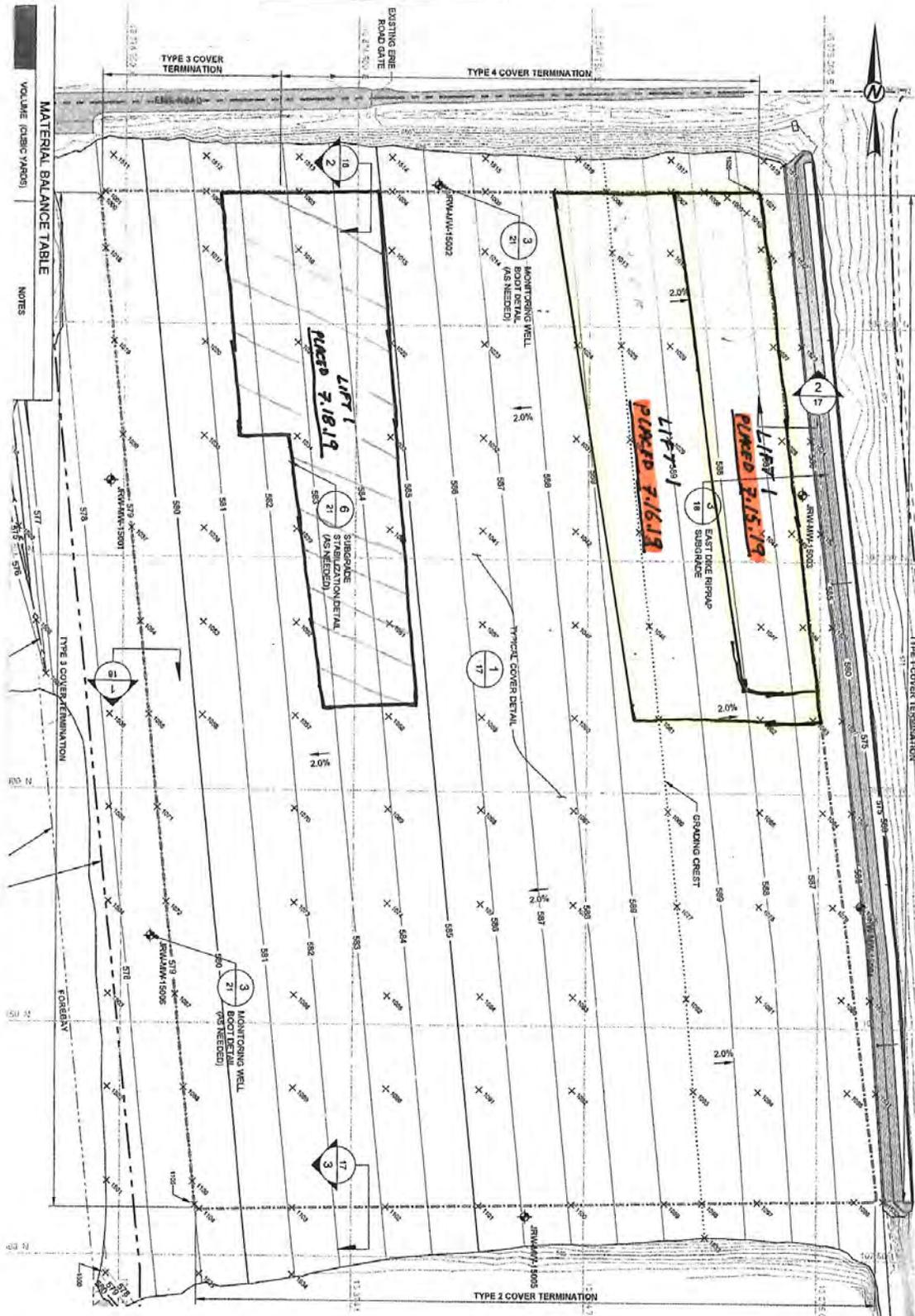
Placing lift of structural fill in Pond 1, looking north.



Density test of compacted structural fill in Pond 1, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 1



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

DENSITY TEST MAP
LIFT 1



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/19/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Mostly Cloudy	Temperature: 74
Weather (PM): Mostly Cloudy	Temperature: 96
Precipitation: None	Wind: SW 3-10 mph

EQUIPMENT ON SITE

1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator; 1-On-Road Water Truck.

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators, 2 Laborers

- Continued deployment of textile and placement of bridging layer in Pond 2.
- Continue excavation of the area west of Pond 2 down to sub-grade, working west to east, material hauled to Pond 2.
- Continued placement of structural fill in Pond 1 In a single 11 to 12 inch loose lift.
- Continued compacting structural fill placed in Pond 1 with an 815 compactor.
- Continued removing of saturated CCR material from the northwest corner of Pond 2 and spread in thin lift over placed bridging layer in Pond 2.
- Received delivery of structural fill material from off-site source for Pond 1.
- Water truck for dust control and fill moisture.

ProAct Services – 1 Foreman

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.
- System back flushed and filters changed as needed.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19: 20,293 gal.	
07/04/19: None	07/11/19: 27,943 gal.	07/18/19: None	
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.	07/19/19: 20,316 gal.	
07/06/19: 95,100 gal.	07/13/19: None		
Total: 13,783,738 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed excavation of the area west of Pond 2 down to sub-grade and hauling material to Pond 2 for bridging layer.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder observed removing saturated CCR from the northwest corner of Pond 2 and loading into haul trucks. Material spread in 2 inch lift atop placed bridging layer in Pond 2 to dry.
- Golder performed Standard test on Troxler 3440 prior to density testing.
- Performed density test's SFDT-4 thru SFDT-9 on 9-inch compacted structural fill placed in Pond 1 using a Troxler 3440 Nuclear Gauge (see density test map). Compacted and tested structural fill met all specifications.
- Golder observed delivery of structural fill for Pond 1.
- Golder observed pumping of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF PROBLEMS AND RESOLUTIONS

While excavating CCR west of Pond 2 and south of MW-15006 Ryan discovered a pool of liquid that appears to be oil. Also found a second smaller pool about 25 feet north and pool of standing water with oily sheen about 50 feet north. Jeff Yuchasz CEC construction manager was notified and asked how he wanted to proceed, he told Ryan to install containment around the three identified areas, obtain containment vessels for removal of contaminated soils and he would contact CEC for further direction.

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Placement of bridging layer in Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Placement of structural fill lift in Pond 1, looking north.



Compacting structural fill placed in Pond 1, looking northeast.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavation of CCR west of Pond 2, looking south.



Pool of suspect liquid that appears to be oil in cut west of Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 2



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

DENSITY TEST MAP LIFT 1



 = PREVIOUSLY TESTED

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/20/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/1600
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Partly Sunny	Temperature: 76
Weather (PM): Mostly Sunny	Temperature: 92
Precipitation: None	Wind: SW 0-8 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator; 1-On-Road Water Truck.

SUMMARY OF CONSTRUCTION																												
Work performed while Golder was onsite:																												
Ryan Central -2 Foreman, 6 Operators, 2 Laborers																												
<ul style="list-style-type: none"> Continued deployment of textile and placement of bridging layer in Pond 2. Continue excavation of the dyke between Ponds 1 and 2, material placed in Pond 2 for bridging layer. Continued placement of structural fill in Pond 1 In a single 11 to 12 inch loose lift. Continued compacting structural fill placed in Pond 1 with an 815 compactor. Continued removal of saturated CCR material from the northwest corner of Pond 2 and spread in thin lift over placed bridging layer in Pond 2. Received delivery of structural fill material from off-site source for Pond 1. Water truck for dust control and moisture conditioning of placed fill. 																												
ProAct Services – No personnel onsite today.																												
<u>Summary of Dewatering through 07-20-19:</u>																												
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DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19:	None
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19:	17,852 gal.
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19:	20,293 gal.
07/04/19: None	07/11/19: 27,943 gal.	07/18/19:	None
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.	07/19/19:	20,316 gal.
07/06/19: 95,100 gal.	07/13/19: None	07/20/19:	None
Total: 13,783,738 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed excavation of the dyke between Ponds 1 and 2, material removed placed in Pond 2 for bridging layer.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder observed removal of saturated CCR from the northwest corner of Pond 2 and loading into haul trucks. Material spread in 2 inch lift atop placed bridging layer in Pond 2 to dry.
- Golder observed delivery of structural fill for Pond 1.
- Golder observed use of water truck for dust control on site and moisture conditioning of placed fill.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Overview of Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Delivery of structural fill to Pond 1, looking west.



Excavation of dyke between Ponds 1 and 2, looking south.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Excavation of CCR west of Pond 2, looking south.



Overview of Pond 2, looking northwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 2



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/22/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Mostly Cloudy	Temperature: 65
Weather (PM): Mostly Cloudy	Temperature: 77
Precipitation: None	Wind: NW 0-10 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator; 1-On-Road Water Truck.

SUMMARY OF CONSTRUCTION	
Work performed while Golder was onsite:	
Ryan Central -2 Foreman, 6 Operators, 2 Laborers	
<ul style="list-style-type: none"> Continued deployment of textile and placement of bridging layer in Pond 2. Continue excavation of Pond 2's west dyke down to sub-grade, material hauled to Pond 2. Continued placement of structural fill in Pond 1 In a single 11 to 12 inch loose lift. Continued compacting structural fill placed in Pond 1 with an 815 compactor. Began removal of contaminated soil found west of Pond 2. Received delivery of structural fill material from off-site source for Pond 1. Received delivery of 8 rolls of 8oz. geotextile. Water truck for dust control and fill moisture. 	
ProAct Services – 1 Foreman	
<ul style="list-style-type: none"> ProAct onsite at 0700 to startup dewatering system in Pond 2. Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M. System back flushed and filters changed as needed. 	
<u>Summary of Dewatering through 07-08-19:</u>	
<u>Week 1</u>	<u>Week 2</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.
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<u>Week 3</u>	<u>Week 4</u>
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05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/25/19: None	06/01/19: None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
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07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	07/22/19: 15,890 gal.
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19: 20,293 gal.	
07/04/19: None	07/11/19: 27,943 gal.	07/18/19: None	
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.	07/19/19: 20,316 gal.	
07/06/19: 95,100 gal.	07/13/19: None	07/20/19: None	
			Total: 13,799,628 gal.

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed excavation of Pond 2's west dyke down to sub-grade and hauling material to Pond 2 for bridging layer.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder monitored removal of visibly contaminated soil found west of Pond 2 while cutting CCR down to sub-grade.
- Golder collected 5 gallon sample of structural fill from import material for grain size and modified proctor testing, sample shipped to lab via Fed-Ex.
- Golder inventoried 8 rolls of 8oz. geotextile delivered to site, 7 of the rolls matched certs with 8th roll not matching the certs submitted and approved. Notified Ryan that they would need to obtain a cert for the roll in question and send to Golder for review and approval.
- Golder observed delivery of structural fill for Pond 1.
- Golder observed pumping of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

- CEC environmental onsite and collected sample from the oil/tar like substance found while cutting CCR west of Pond 2 down to sub-grade to profile.
- Ryan excavated soils from the smaller pool with the oil/tar like substance liquid and placed in lined 55 gallon drum, drum sealed for disposal after profiling completed. Larger pool requires more than 55

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

gallon drum and will have visibly contaminated soils removed upon arrival of a lined dumpster expected to arrive onsite tomorrow. CEC and Golder monitored removal and performed a visual inspection to verify all suspect soil removed from area around the smaller pool.

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



5 gallon bucket found while clean-up of the oil/tar like soils west of Pond 2.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Area that the pool of oil/tar like matter soils after removal and placed in lined 55 gallon drum.



Placing lift of structural fill east of Pond 1 along top of shoreline slope, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Structural fill delivery to Pond 1, looking east.



Overview of Pond 1 with single lift of structural fill, looking southwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 2



MATERIAL BALANCE TABLE
 VOLUME (CUBIC YARDS)
 NOTES

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 2



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/23/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS			
Weather (AM):	Sunny	Temperature:	56
Weather (PM):	Sunny	Temperature:	79
Precipitation:	None	Wind:	W 4-12 mph

EQUIPMENT ON SITE
1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozer; 1-Cat 326F Excavator; 1-On-Road Water Truck.

SUMMARY OF CONSTRUCTION
Work performed while Golder was onsite:
Ryan Central -2 Foreman, 6 Operators, 2 Laborers
<ul style="list-style-type: none">Continued deployment of textile and placement of bridging layer in Pond 2.Continue excavation of Pond 2's west dyke down to sub-grade, material hauled to Pond 2.Continued placement of structural fill in Pond 1 In a single 11 to 12 inch loose lift.Continued compacting structural fill placed in Pond 1 with an 815 compactor.Continued removal of contaminated soil found west of Pond 2.Received one 25yd lined dumpster for contaminated soils being removed west of Pond 2.Received delivery of structural fill material from off-site source for Pond 1.Water truck for dust control and fill moisture.Demobilized Cat 326F Excavator.
ProAct Services – 1 Foreman
<ul style="list-style-type: none">ProAct onsite at 0700 to startup dewatering system in Pond 2.Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M.System back flushed and filters changed as needed.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
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06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	<u>Week 12</u>
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	07/22/19: 15,890 gal.
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	07/23/19: 15,310 gal.
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19: 20,293 gal.	
07/04/19: None	07/11/19: 27,943 gal.	07/18/19: None	
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.	07/19/19: 20,316 gal.	
07/06/19: 95,100 gal.	07/13/19: None	07/20/19: None	
Total: 13,814,938 gal.			

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed excavation of Pond 2's west dyke down to sub-grade and hauling material to Pond 2 for bridging layer.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder monitored removal of visibly contaminated soil found west of Pond 2 while cutting CCR down to sub-grade. Material removed was placed in a lined 25yd dumpster for transport to disposal facility.
- Golder performed Standard test on Troxler 3440 prior to density testing.
- Performed density test's SFDT-10 thru SFDT-12 on 9-inch compacted structural fill lift 2 placed in Pond 1 using a Troxler 3440 Nuclear Gauge (see density test map). Compacted and tested structural fill met all specifications.
- Golder observed delivery of structural fill for Pond 1.
- Golder observed pumping of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS
--

Hydraulic line on one of the gravel trains burst while dumping structural fill in Pond 1 for placement and leaked approximately 3 to 4 gallons onto compacted structural fill lift. Ryan used absorbent towels and kitty litter from onsite spill kit to clean-up liquid on surface and removed top 2 inches of compacted fill under spill. Area inspected CEC and Golder personnel to confirm all hydraulic oil and contaminated soil was removed. Absorbent towels were sealed in trash bags then bags and removed soil placed into dumpster.

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature: 
--

PHOTOGRAPHS



Placing lift of structural fill in Pond 1, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



815 compacting placed structural fill in Pond 1, looking north.



Density testing of compacted structural fill in Pond 1.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Absorbent pads used for hydraulic oil leak in Pond 1, looking north.



Lined dumpster used for disposal of contaminated soils excavated west of Pond 2, looking east.

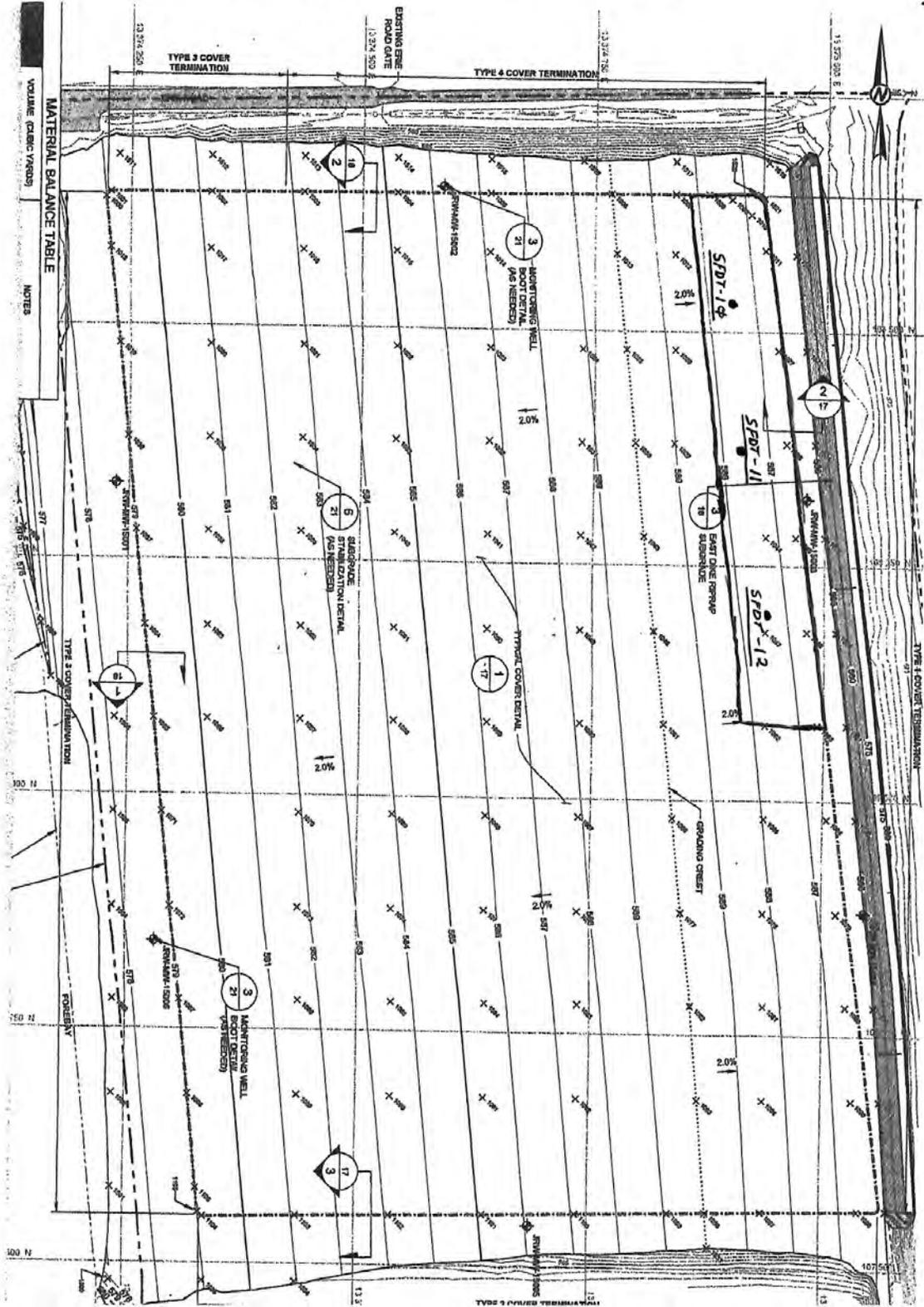
DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 2



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

DENSITY TEST MAP LIFT 2



MATERIAL BALANCE TABLE
VOLUME (CUBIC YARDS)
NOTES



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/24/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Sunny	Temperature: 56
Weather (PM): Mostly Sunny	Temperature: 79
Precipitation: None	Wind: W 4-12 mph

EQUIPMENT ON SITE
1-Kubota RTV X1120D; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozers

SUMMARY OF CONSTRUCTION																												
<p>Work performed while Golder was onsite:</p> <p>Ryan Central -1 Foreman, 5 Operators, 2 Laborers</p> <ul style="list-style-type: none"> Began excavation of CCR from the south dike of Pond 2 and placing within the pond for bridging layer. Began excavation of swale west of Pond 1. Continued deployment of textile and placement of bridging layer in Pond 2. Continue excavation of Pond 2's west dike down to sub-grade, material hauled to Pond 2. Continued placement of structural fill in Pond 1 in a single 11 to 12 inch loose lift. Continued compacting structural fill placed in Pond 1 with an 815 compactor. Received delivery of structural fill material from off-site source for Pond 1. Water truck for dust control and fill moisture. <p>ProAct Services – 1 Foreman</p> <ul style="list-style-type: none"> ProAct onsite at 0700 to startup dewatering system in Pond 2. Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in A.M. System back flushed and filters changed as needed. <p><u>Summary of Dewatering through 07-08-19:</u></p> <table border="0"> <thead> <tr> <th><u>Week 1</u></th> <th><u>Week 2</u></th> <th><u>Week 3</u></th> <th><u>Week 4</u></th> </tr> </thead> <tbody> <tr> <td>05/06/19: 281,988 gal.</td> <td>05/13/19: 399,021 gal.</td> <td>05/20/19: 328,687 gal.</td> <td>05/27/19: Holiday</td> </tr> <tr> <td>05/07/19: 387,165 gal.</td> <td>05/14/19: 484,537 gal.</td> <td>05/21/19: 402,720 gal.</td> <td>05/28/19: 386,176 gal.</td> </tr> <tr> <td>05/08/19: 405,104 gal.</td> <td>05/15/19: 486,473 gal.</td> <td>05/22/19: 487,716 gal.</td> <td>05/29/19: 468,094 gal.</td> </tr> <tr> <td>05/09/19: 404,705 gal.</td> <td>05/16/19: 481,499 gal.</td> <td>05/23/19: 408,516 gal.</td> <td>05/30/19: 357,569 gal.</td> </tr> <tr> <td>05/10/19: 410,498 gal.</td> <td>05/17/19: 484,331 gal.</td> <td>05/24/19: 484,613 gal.</td> <td>05/31/19: 161,965 gal.</td> </tr> <tr> <td>05/11/19: 64,691 gal.</td> <td>05/18/19: 249,566 gal.</td> <td>05/25/19: None</td> <td>06/01/19: None</td> </tr> </tbody> </table>	<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>	05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday	05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.	05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.	05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.	05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.	05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
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DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
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06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
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07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	07/22/19: 15,890 gal.
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	07/23/19: 15,310 gal.
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19: 20,293 gal.	07/24/19: 23,572 gal.
07/04/19: None	07/11/19: 27,943 gal.	07/18/19: None	
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.	07/19/19: 20,316 gal.	
07/06/19: 95,100 gal.	07/13/19: None	07/20/19: None	
			Total: 13,838,510 gal.

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed cutting of Pond 2's south dike down to sub-grade, material removed placed into Pond 2 for use in the bridging layer.
- Golder observed excavation for the swale west of Pond 1.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder observed excavation of Pond 2's west dike down to sub-grade and hauling material to Pond 2 for bridging layer.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder performed Standard test on Troxler 3440 prior to density testing.
- Performed density test's SFDT-13 thru SFDT-18 on 9-inch compacted structural fill lift's 1 and 2 placed in Pond 1 using a Troxler 3440 Nuclear Gauge (see density test map). Compacted and tested structural fill met all specifications.
- Golder observed import of structural fill for Pond 1.
- Golder observed pumping of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

Bi-Weekly construction meeting with CEC, Ryan, ProAct and Golder.

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson
--

Signature:



PHOTOGRAPHS



Overview of northeast corner of Pond 2, looking northwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Structural fill import and placement in Pond 1, looking northeast.



Excavating Pond 2's west dike, looking northwest.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Bridging layer in Pond 2, looking south.



Charging standing water outside southwest corner of Pond 1, looking north.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 1



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 2



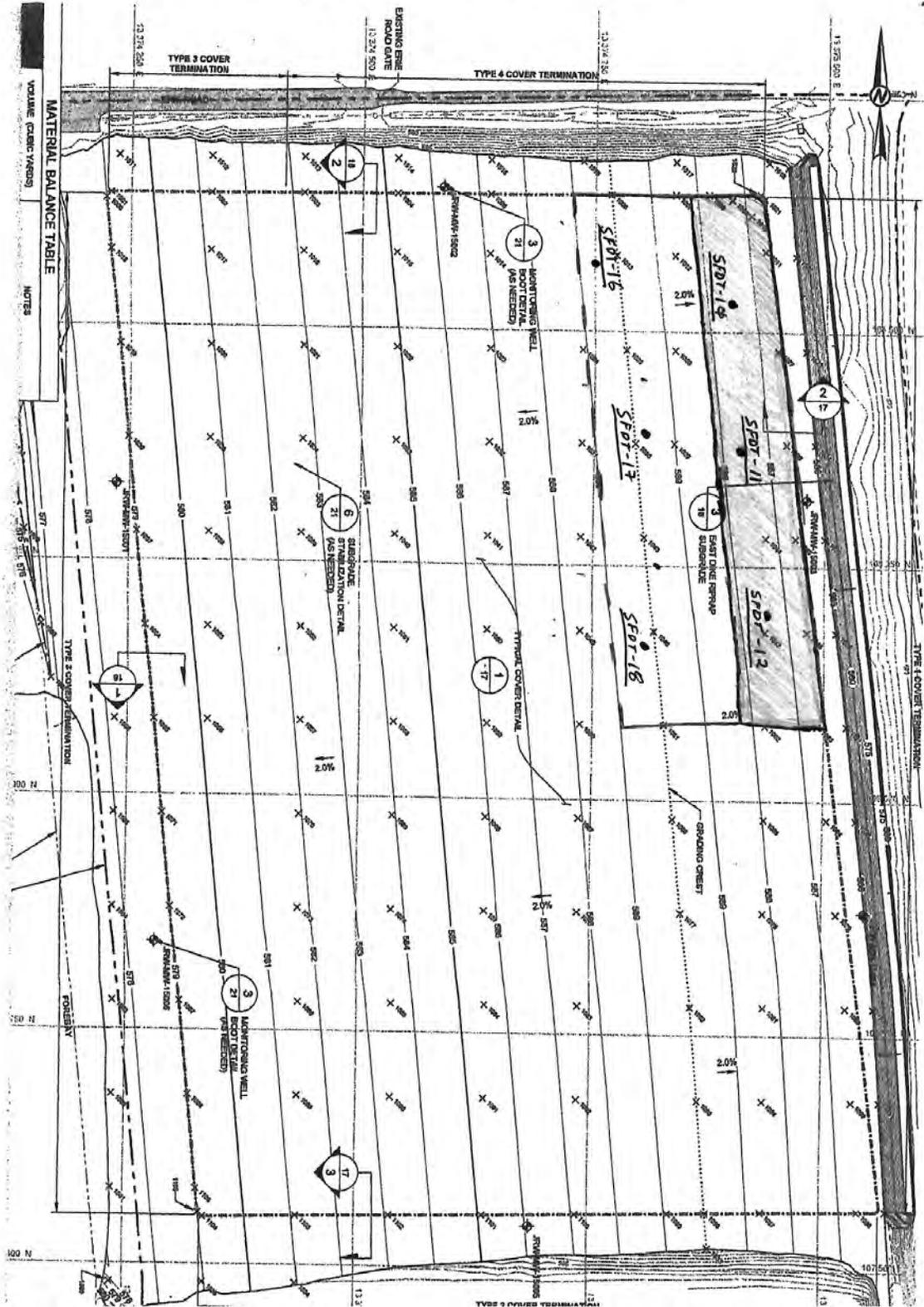
DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

DENSITY TEST MAP LIFT 1



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

DENSITY TEST MAP LIFT 2



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW			
Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/25/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS	
Weather (AM): Mostly Sunny	Temperature: 61
Weather (PM): Mostly Sunny	Temperature: 86
Precipitation: None	Wind: SW 0-4 mph

EQUIPMENT ON SITE
1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozers, 1-John Deere 9520 Tractor

SUMMARY OF CONSTRUCTION																												
Work performed while Golder was onsite:																												
Ryan Central -2 Foreman, 6 Operators, 2 Laborers																												
<ul style="list-style-type: none"> Continue excavation of swale west of Pond 1. Continued deployment of textile and placement of bridging layer in Pond 2. Continued placement of structural fill in Pond 1 in a single 11 to 12 inch loose lift. Continued compacting structural fill placed in Pond 1 with an 815 compactor. Removed access gate and fencing west of Pond 1. Continue placing waddles east of Pond 2. Received delivery of structural fill material from off-site source for Pond 1. Water truck for dust control and fill moisture. 																												
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DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

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07/06/19: 95,100 gal.	07/13/19: None	07/20/19: None	
			Total: 13,838,510 gal.

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed excavation for the swale west of Pond 1.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder observed removal of access road gate and associated fencing east of Pond 1 for excavation of swale.
- Golder performed Standard test on Troxler 3440 prior to density testing.
- Performed density test's SFDT-19 and SFDT-20 on 9-inch compacted structural fill lift's 1 and 2 placed in Pond 1 using a Troxler 3440 Nuclear Gauge (see density test map). Compacted and tested structural fill met all specifications.
- Golder observed installation of waddles east of Pond 2 along top of shoreline slope.
- Golder observed import of structural fill for Pond 1.
- Golder observed pumping of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.

SUMMARY OF SURVEYOR'S ACTIVITIES

Ryan surveyor shot Pond 2 by drone.

SUMMARY OF PROBLEMS AND RESOLUTIONS

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)

None

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Sweeper to maintain Erie Rd., looking south.



Dust control and maintaining moisture in placed structural fill, looking east.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Overview of Pond 2's northeast corner, looking east.



Excavation for the swale west of Pond 1, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 2



MATERIAL BALANCE TABLE
VOLUME (CUBIC YARDS)
NOTES

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

PROJECT OVERVIEW

Project Title:	J.R. Whiting Ponds 1 and 2 Closure CQA	Project Number: 1788523	Date: 7/26/2019
Client:	Consumers Energy	Site/Location:	Erie, MI
GAI Personnel:	David Hutchinson	Arrival/Departure Time:	0630/2000
Contractor(s):	Ryan Central Inc. ProAct	Contractor(s) Rep:	John Johnson (Ryan Central) Guillermo Arredondo (ProAct)

SITE CONDITIONS

Weather (AM): Mostly Sunny	Temperature: 67
Weather (PM): Partly Sunny	Temperature: 86
Precipitation: None	Wind: S 3-11 mph

EQUIPMENT ON SITE

1-Kubota RTV X112OD; 1-CAT Water Truck; 1-CAT 349F Excavator; 1-CAT A200 LGP Dozer; 1-Volvo A45G Haul truck; 1-John Deere 644G Loader; 1-Cat CS56B Smooth Drum Roller; 1-Volvo A40 Haul truck; 1-Komatsu PC360LC Long Reach Excavator; 2-Cat D6T Dozers, 1-John Deere 9520 Tractor

SUMMARY OF CONSTRUCTION

Work performed while Golder was onsite:

Ryan Central -2 Foreman, 6 Operators, 2 Laborers

- Continue excavation of swale west of Pond 1.
- Continued deployment of textile and placement of bridging layer in Pond 2.
- Continued placement of structural fill in Pond 1 in a single 11 to 12 inch loose lift.
- Continued compacting structural fill placed in Pond 1 with an 815 compactor.
- Cat 815 compacted structural fill in Chemical Pond work area.
- Proof rolled 2nd lift of structural fill in the Chemical Pond work area.
- Received delivery of structural fill material from off-site source for Pond 1.
- Water truck for dust control and fill moisture.
- Mobilized one Cat D6T and demobilized one GPS Cat D6T.

ProAct Services – 1 Foreman

- ProAct onsite at 0700 to startup dewatering system in Pond 2.
- Turbidity readings were taken by ProAct every hour while pumping to discharge channel and licensed tester onsite in P.M.
- System back flushed and filters changed as needed.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

Summary of Dewatering through 07-08-19:

<u>Week 1</u>	<u>Week 2</u>	<u>Week 3</u>	<u>Week 4</u>
05/06/19: 281,988 gal.	05/13/19: 399,021 gal.	05/20/19: 328,687 gal.	05/27/19: Holiday
05/07/19: 387,165 gal.	05/14/19: 484,537 gal.	05/21/19: 402,720 gal.	05/28/19: 386,176 gal.
05/08/19: 405,104 gal.	05/15/19: 486,473 gal.	05/22/19: 487,716 gal.	05/29/19: 468,094 gal.
05/09/19: 404,705 gal.	05/16/19: 481,499 gal.	05/23/19: 408,516 gal.	05/30/19: 357,569 gal.
05/10/19: 410,498 gal.	05/17/19: 484,331 gal.	05/24/19: 484,613 gal.	05/31/19: 161,965 gal.
05/11/19: 64,691 gal.	05/18/19: 249,566 gal.	05/25/19: None	06/01/19: None
<u>Week 5</u>	<u>Week 6</u>	<u>Week 7</u>	<u>Week 8</u>
06/03/19: 185,365 gal.	06/10/19: 175,022 gal.	06/17/2019: 247,813 gal.	06/24/2019: 218,008 gal.
06/04/19: 409,662 gal.	06/11/19: 184,365 gal.	06/18/2019: 68,510 gal.	06/25/2019: 208,371 gal.
06/05/19: 345,122 gal.	06/12/19: 178,934 gal.	06/19/2019: 215,872 gal.	06/26/2019: 181,215 gal.
06/06/19: 311,007 gal.	06/13/19: 147,219 gal.	06/20/2019: 207,117 gal.	06/27/2019: 216,650 gal.
06/07/19: 276,790 gal.	06/14/19: 13,156 gal.	06/21/2019: 200,874 gal.	06/28/2019: 208,921 gal.
06/08/19: 65,064 gal.	06/15/19: 142,063 gal.	06/22/2019: 102,207 gal.	06/29/2019: 135,907 gal.
<u>Week 9</u>	<u>Week 10</u>	<u>Week 11</u>	<u>Week 12</u>
07/01/19: 175,586 gal.	07/08/19: 107,894 gal.	07/15/19: None	07/22/19: 15,890 gal.
07/02/19: 129,459 gal.	07/09/19: 44,007 gal.	07/16/19: 17,852 gal.	07/23/19: 15,310 gal.
07/03/19: 13,878 gal.	07/10/19: 25,922 gal.	07/17/19: 20,293 gal.	07/24/19: 23,572 gal.
07/04/19: None	07/11/19: 27,943 gal.	07/18/19: None	07/25/19: None
07/05/19: 137,112 gal.	07/12/19: 18,335 gal.	07/19/19: 20,316 gal.	07/26/19: None
07/06/19: 95,100 gal.	07/13/19: None	07/20/19: None	
			Total: 13,838,510 gal.

GAI CQA ACTIVITIES AND TEST RESULTS

Construction:

- Golder onsite documenting the construction progress.
- Golder observed excavation for the swale west of Pond 1.
- Golder observed deployment of textile and placement of single bridging layer using CCR in Pond 2.
- Golder monitored placement of structural fill in Pond 1, Cat D6T with GPS placed material in a single 11 to 12 inch loose lift. Cat 815 sheep foot was used to compact to 9 inches.
- Golder performed Standard test on Troxler 3440 prior to density testing.
- Performed density test's SFDT-21 and SFDT-22 on 9-inch compacted structural fill lift's 1 and 3 placed in Pond 1 using a Troxler 3440 Nuclear Gauge (see density test map). Compacted and tested structural fill met all specifications.
- Golder observed compaction of 2nd lift of structural fill from onsite stockpile in the Chemical Pond work area using a Cat 815 Compactor.
- Golder monitored proof roll of compacted structural fill from onsite stockpile in the Chemical Pond work area using an empty Volvo A40G.
- Golder observed import of structural fill for Pond 1.
- Golder observed pumping of Pond 2 thru filtering system into discharge channel.
- Golder observed use of water truck for dust control on site.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

SUMMARY OF SURVEYOR'S ACTIVITIES

None

SUMMARY OF PROBLEMS AND RESOLUTIONS
--

None

SUMMARY OF MEETINGS/DISCUSSIONS HELD (ATTENDEES AND ISSUES)
--

None

SUMMARY OF INCIDENTS / ACCIDENTS / HEALTH AND SAFETY ISSUES
--

None

SUBMITTED BY GOLDER:

CQA Field Manager: David Hutchinson

Signature:



PHOTOGRAPHS



Dust control and moisture maintenance of fill placed in Pond 1, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Compacting structural fill placed in Pond 1, looking southwest.



Placing bridging layer in Pond 2, looking west.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



Overview of compacted structural fill at the Chemical Ponds, looking west.



Proof roll of structural fill at the Chemical Ponds.

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

S.F. LIFT MAP / LIFT 1

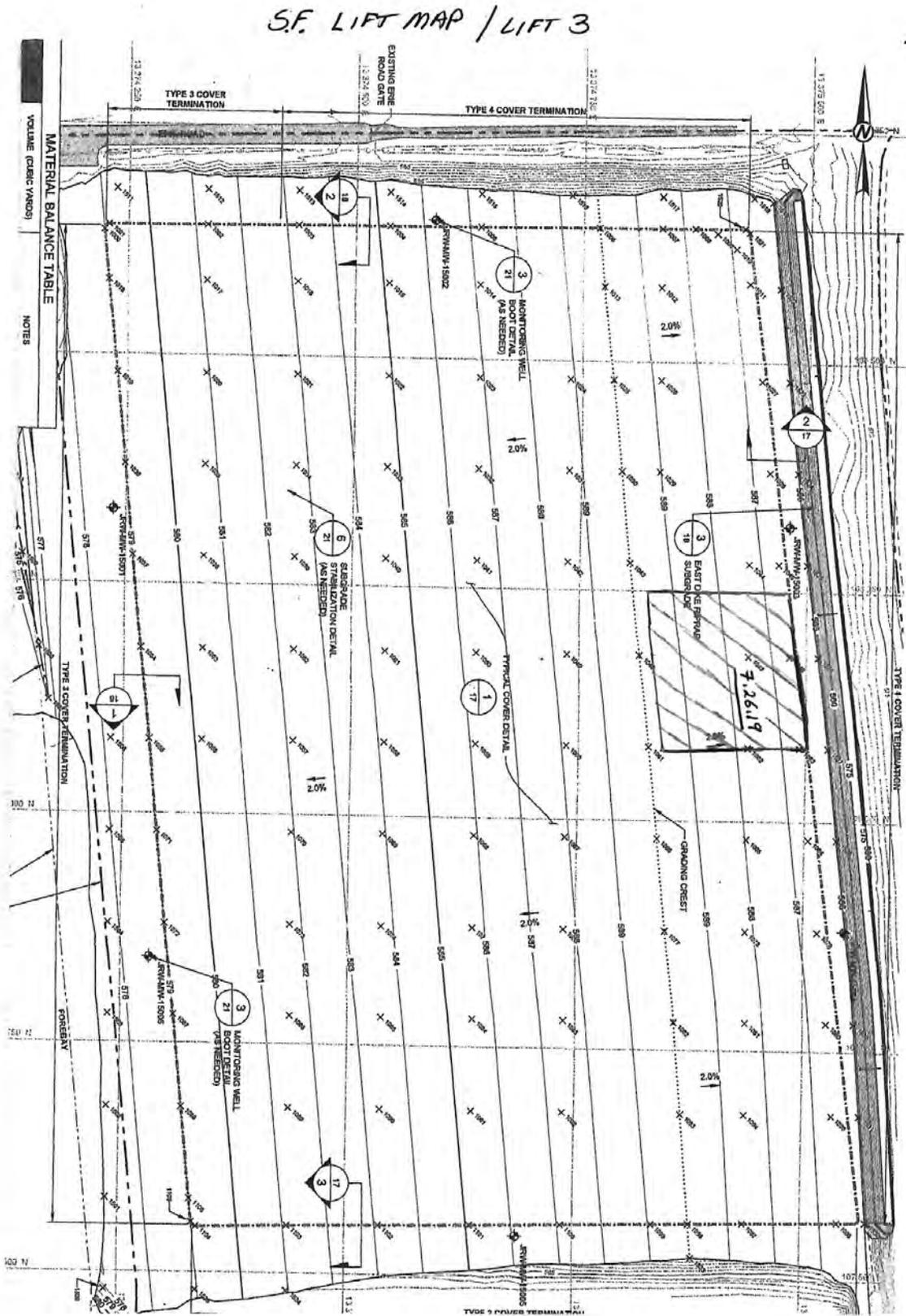


MATERIAL BALANCE TABLE

VOLUME (CUBIC YARDS)

NOTES

DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure



VOLUME (CUBIC YARDS)
 MATERIAL BALANCE TABLE
 NOTES



DAILY FIELD FORM – J.R. Whiting Ponds 1 and 2 Closure

DENSITY TEST MAP
LIFT 1



 = PREVIOUSLY TESTED

