Michigan Department of Environmental Quality
Office of Waste Management and Radiological Protection

SOLID WASTE DISPOSAL AREA OPERATING LICENSE

This license is issued under the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.11501 et seq., and authorizes the operation of this solid waste disposal area (Facility) in the state of Michigan. This license does not obviate the need to obtain other authorizations as may be required by state law.

FACILITY NAME: Pine Tree Acres, Inc.

LICENSEE/OPERATOR: Pine Tree Acres, Inc.

FACILITY OWNER: Pine Tree Acres, Inc.

PROPERTY OWNER: Pine Tree Acres, Inc.

FACILITY TYPE(S): Municipal Solid Waste Landfill and Municipal Solid Waste Incinerator Ash Landfill

FACILITY ID NUMBER: 398972

COUNTY: Macomb

LICENSE NUMBER: 9461

ISSUE DATE: December 17, 2015

EXPIRATION DATE: December 17, 2020

FACILITY DESCRIPTION: The Pine Tree Acres, Inc., Landfill, a municipal solid waste landfill, and municipal solid waste incinerator ash landfill, consists of 564.5 acres located at 36600 29 Mile Road, Lenox Township, Macomb County, Michigan, as identified in Attachment A and fully described in this license.

AREA AUTHORIZED FOR DISPOSAL OF SOLID WASTE: Identified in Attachment A.

RESPONSIBLE PARTY: Mr. David R. Rogers, District Manager
Pine Tree Acres, Inc.
36600 29 Mile Road
Lenox, Michigan 48048
586-749-6005

RENEWAL OPERATING LICENSE: This License Number 9461 supersedes and replaces Solid Waste Disposal Area Operating License Number 9349 issued to Pine Tree Acres, Inc., on February 28, 2013.

This license is subject to revocation by the Director of the Michigan Department of Environmental Quality, if the Director finds that this Facility is not being constructed or operated in accordance with the approved plans, the conditions of a permit or license, Part 115, or the rules promulgated under Part 115. Failure to comply with the terms and provisions of this license may result in legal action leading to civil and/or criminal penalties pursuant to Part 115. This license shall be available through the licensee during its term and remains the property of the Director.

THIS LICENSE IS NOT TRANSFERABLE.

Rhonda S. Oyer

Rhonda Oyer, Acting Chief, Solid Waste Section
Office of Waste Management and Radiological Protection

The licensee shall comply with all terms of this license and the provisions of Part 115 and the administrative rules implementing Part 115 (Part 115 Rules). This license includes the license application and any attachments to this license.

1. The licensee shall operate the Facility in a manner that will prevent violations of any state or federal law.

2. The following portions of the Facility are authorized to receive solid waste by this license:

   ACTIVE PORTIONS NOT AT FINAL GRADE: The area(s) identified as Cell 3/4, Cell 5, Cell 6, Cell 7, Cell 8, Cell 9, Cell 11, Cell 12, Cell 13, Cell 14, Cell 15, Cell 16, Cell 17, Cell 19, Cell 20, Cell 21, and Cell 22 were authorized to receive waste by the previous license. This area's total acreage is 252.4 acres.

3. The following portions of the Facility **WILL BE** authorized to receive solid waste by this license following approval by the Michigan Department of Environmental Quality (MDEQ) of construction certification:

   UNCONSTRUCTED AREA(S) WITH FINANCIAL ASSURANCE: The area(s) identified as Cell 23 (12.9 acres) and Cell 23 East (0.5 acres), totaling 13.4 acres, are included in the calculation of financial assurance as required by Section 11523 of Part 115. This portion(s) of the Facility shall be authorized to receive waste, as part of this license, when acceptable certification is submitted to the MDEQ, as required by Section 11516(5) of Part 115, and determined by the MDEQ to be consistent with Part 115 and the Part 115 Rules. The certification shall verify that construction of this area(s) was in accordance with the Construction Permit(s) listed in Item 8 of this license, Part 115, and the Part 115 Rules.

4. The following portions of the Facility are **NOT** authorized to receive solid waste by this license:

   UNCONSTRUCTED AREA(S) WITHOUT FINANCIAL ASSURANCE: The area(s) identified as Cell 18 (17.7 acres), Cell 18 East (0.1 acres), Cell 23 North (0.7 acres), Cell 24 West (0.5 acres), Cells 24-30 (76.5 acres) are not constructed and are not included in the calculation of financial assurance as required by Section 11523 of Part 115. This area's total acreage is 95.5 acres.

5. The attached map (Attachment A) shows the Facility, the area permitted for construction, monitoring points, leachate storage units, site roads, other disposal areas, and related appurtenances.

6. Issuance of this license is conditioned on the accuracy of the information submitted by the Applicant in the Application for License to Operate a Solid Waste Disposal Area (Application) received by the MDEQ on August 25, 2015, and any subsequent amendments. Any material or intentional inaccuracies found in that information is grounds for the revocation or modification of this license and may be grounds for enforcement action. The licensee shall inform the MDEQ's Office of Waste Management and Radiological Protection (OWMRP), Southeast Michigan District Supervisor, of any inaccuracies in the information in the Application upon discovery.

7. This license is issued based on the MDEQ's review of the Application, submitted by Pine Tree Acres, Inc., for the Pine Tree Acres, Inc., dated August 21, 2015. The Application consists of the following:

   a. Application Form EQP 5507.

   b. Application fee in the amount of $15,000.00.

   c. Certification of construction by N/A.

   d. Waste Characterization: N/A.

   e. Restrictive Covenant:

      The Pine Tree Acres, Inc. restrictive covenant on 564.5 acres is on file at the Macomb County Register of Deeds recorded on November 4, 2015, as Liber 23707 pages 790. A copy is on file with the MDEQ.

f. The Application reports found in Volume 1-3 (Volume 2 includes Volumes I and II for the Hydrogeological Investigation), titled "Application for Permit to Construct a Solid Waste Disposal Area, Pine Tree Acres, Inc., Landfill, Southern Area," dated September 7, 2006, and prepared by CTI and Associates, Inc., including, in part:

   i. The environmental assessment, titled "Environmental Assessment," dated September 2006, prepared by ASTI Environmental, and located in Volume 1.

   ii. The hydrogeologic study titled "Hydrogeological Investigation, Volumes I and II," dated February 2006, revised February 2007, and prepared by NTH Consultants, Ltd.

   iii. The hydrogeological monitoring plan titled "Hydrogeological Monitoring Plan," dated February 2006, revised February 2007, and prepared by NTH Consultants, Ltd. A new HMP, prepared by CTI and Associates, was submitted with the construction permit application for the East Development Area and dated January 2014, revised February 2014, and April 2015.

   iv. The engineering report titled "Engineering Report," dated September 2006, revised February 2007, and prepared by CTI and Associates, Inc.

g. Engineering drawings containing sheets 1-19, titled "Pine Tree Acres, Inc., Southern Area Construction Permit Application," dated October 2006, revised February 2007, February 2009, March 2009, May 2009, June 2009, July 16, 2009 (revision - revision 5, sheets 1, 5, 13, 14), January 2010, and prepared by CTI and Associates, Inc.

h. The Application reports found in Volumes I-IV titled "Application for Permit to Construct a Solid Waste Disposal Area, Pine Tree Acres, Inc. Landfill, East Development Area," dated January 2014, prepared by CTI and Associates, Inc. (unless indicated otherwise), and including the following documents:

   i. Volume I of IV: Engineering Report and Plans, dated January 2014, revised March and April 2015.

   ii. Volume II of IV: Environmental Assessment, prepared by ASTI Environmental, dated January 2014, revised April 2015.

   iii. Volume III of IV: Hydrogeologic Investigation Report, dated January 2014, revised March 2015, and April 2015.

   iv. Volume IV of IV: Hydrogeologic Monitoring Plan, dated January 2014, revised March 2015, and April 2015..

9. The following additional documents, approved since the issuance of the construction permit(s) referenced in Item 8, are incorporated in this license by reference:

   a. Engineering plans titled "A&A of Lenox, Inc., Sanitary Type II Landfill, Section 8 As Built" dated March 1987 and prepared by James W. Shink & Assoc. Consulting Engineering.

   b. Pine Tree Acres Monitoring Well Installation Plan dated July 2, 1991, and prepared by GZA.

   c. Report on Construction Quality Assurance Services, Cell 3/4 - Pine Tree Acres, Lenox, Michigan, Volumes I and II dated October 1998, and prepared by Golder Construction Services, Inc.

   d. Pine Tree Acres Soil Boring Report dated January 29, 1999, and prepared by Golder Associates, Inc.

   e. Pine Tree Acres Monitor Well Installation Work Plan dated August 1999, and prepared by NTH Consultants, Ltd.

   f. Pine Tree Acres Monitoring Well Installation Report dated January 19, 2000, and prepared by NTH Consultants, Ltd.

   g. Pine Tree Acres Methane Gas Migration Remediation Plan dated March 31, 2000, and prepared by Waste Management.

h. Cells 12 and 13 Slope Cap Leachate Collection System Extension dated September 2000, and prepared by Earth Tech.

i. Two engineering drawings revising Drawings 4C and 5L of the document listed in Item 8.d and titled respectively "Leachate Collection System Plan," Revision 2, dated August 2001, and "Leachate Collection System Details, Sheet 3 of 3," Revision 1, dated August 2001, and prepared by McNeely and Lincoln Associates, Inc.

j. Report titled "Pine Tree Acres, Inc. - Cell 15 Construction, Cushion Geotextile Selection for the Primary 60-mil HDPE Geomembrane, CTI Project Number: 48010021" dated June 25, 2004, and prepared by CTI and Associates, Inc.

k. Construction drawings titled "Cells 16, 17 & Slope Cap Liner Construction Drawings (Sheets 1-15)," dated December 23, 2004, revised June 29, 2005, prepared by McNeely & Lincoln Associates, Inc., and approved August 23, 2005.

l. Engineering plans titled "Revisions to Approved Pine Tree Acres, Inc., Municipal Solid Waste Ash Monofill License Amendment, Relocation of ash monofill Cell 17 to Cell 18," dated February 2005, and revised May 2005.

m. Engineering report titled "Revisions to Approved Pine Tree Acres, Inc., Municipal Solid Waste Ash Monofill License Amendment, Relocation of ash monofill Cell 17 to Cell 18, Engineering Report," dated February 2005, and revised May 2005.

n. Document titled "Municipal & Industrial Storage, Inc., Submittal for Pine Tree Acres Landfill, Leachate Storage System to Supply and Install 48' Diameter Aquastore Leachate Primary Tank & 70' Diameter Secondary Containment Tank," dated September 9, 2005, prepared by Municipal & Industrial Storage, Inc., and approved on October 24, 2005.

o. Construction drawings titled "Pine Tree Acres, Inc., Type II Sanitary Landfill, MDEQ Submittal, Force Main, Pump Site Work Construction Plans (Sheets 1-6), dated October 2005, revised on October 20, 2005, January 9, 2006, May 5, 2006 and May 12, 2006, and prepared by Midwestern Consulting and approved on May 16, 2006.

p. Construction plan revisions to construction drawings titled "Revisions to Approved Pine Tree Acres, Inc., Municipal Ash Monofill License Amendment Relocation of Ash Monofill Cell 17 to 18 (Sheet 2)," dated October 12, 2005, and approved on October 24, 2005.

q. Construction drawings titled "Cells 16 & 17 Perforated Landfill Gas Extraction Trench" dated November 7, 2005, prepared by McNeely & Lincoln Associates, Inc., and approved on January 23, 2006.

r. Document titled "Minor Modifications to the Leachate Storage System" dated April 27, 2006, and approved on May 16, 2006.

s. Document titled "Soil Erosion and Sediment Control Plan and Interim Development Storm Water Management Plan" dated May 31, 2006, and approved on July 20, 2006.

t. Construction drawings titled "Pine Tree Acres, Inc., 2007 Leachate Force Main Improvements" (Sheets 1-5), dated May 6, 2007, prepared by McNeely & Lincoln Associates, Inc., and approved on October 9, 2007.

u. "Natural Soil Barrier Verification and Detection Monitoring Well Installation Work Plan," dated November 27, 2007, and prepared by NTH Consultants, Ltd.

v. Document titled "Updated Landfill Gas Migration Monitoring Plan - Revisions April 2008" dated April 21, 2008, and approved on July 16, 2008.

w. "Report on Groundwater Detection Monitoring Well Installation," dated February 3, 2009, and prepared by NTH Consultants, Ltd.

x. "Natural Soil Barrier Verification Report," dated February 9, 2009, and prepared by NTH Consultants, Ltd.

y. Engineering report titled "Request for Engineering Modifications and Upgrades to the Approved Plans" and engineering plans (Sheets 1, 4, 5, 5A, 6-8, 10-12, 14-16) dated February 12, 2009, revised March 2009, prepared by CTI and Associates, Inc., and approved on May 20, 2009.

z. Engineering plans (Sheets 1-3) titled "Pine Tree Acres, Inc., Cell 6N Manhole Modifications, Lenox Township Michigan" prepared by McNeely & Lincoln Associates, Inc., dated March 31, 2009, and approved on April 23, 2009.

aa. Calculations titled "Pine Tree Acres - Cell 6N Stone Analysis" dated April 15, 2009, prepared by McNeely & Lincoln Associates, Inc.," and approved on April 23, 2009.

bb. E-mail correspondence titled "Pine Tree Acres Landfill Permit Revision" dated June 12, 2009, and June 29, 2009, prepared by CTI & Associates, Inc., and approved on July 16, 2009.

cc. Letter report titled, "Monitoring Well Decommission Pine Tree Acres, Inc." dated November 4, 2009, and prepared by NTH Consultants, Ltd.

dd. Letter report titled "Pine Tree Acres Landfill, Proposed Upgrade to Select Aggregate Specification" (including Attachments 1 through 3 and engineering plan sheets 1 and 13, dated January 6, 2010, prepared by CTI and Associates, Inc., and approved January 22, 2010.

ee. Letter report titled "Pine Trees Acres Landfill, Lenox Township, Michigan, Proposed Leachate Recirculation Plan" dated October 26, 2010, prepared by CTI and Associates, Inc., and approved February 08, 2011.

ff. Letter report titled "Authorization Request to Manage Liquid as Leachate Thiopaq Treatment System, Pine Tree Acres Landfill, Lenox, Michigan" dated April 15, 2011, and prepared by prepared by Conestoga-Rovers & Associates.

gg. Transmittal letter titled "Proposed Permit Revisions, Southern Area Construction Permit, Pine Tree Acres Landfill" dated August 5, 2010, prepared by CTI and Associates, Inc., and approved May 12, 2011.

hh. Document titled "Stormwater Management System Design," dated June 28, 2010, prepared by CTI and Associates, Inc., and approved May 12, 2011. This document supersedes the same named document in Appendix O-1 of the Southern Area Construction Permit Application engineering report.

ii. Engineering plans titled "Pine Tree Acres, Inc., Southern Area Construction Permit Application," dated October 2006 and revised July 6, 2010, prepared by CTI and Associates, Inc., and approved May 12, 2011.

jj. Letter titled "Cell 22 Overlay Liner Installation, Pine Tree Acres, Inc., Lenox, Michigan" dated September 27, 2013.

kk. Document titled "Cell 22 Construction Certification report," Pine Tree Acres, Inc., Lenox Michigan, dated September 2012, and prepared by Weaver Boos Consultants.

ll. Document titled "Cell 23 and Cell 23 Overfill Liner Construction, Construction Certification Report," dated September 8, 2015, and prepared by Weaver Consultants Group.

10. Consent Order/Judgment Number: N/A.

11. The licensee shall repair any portion of the certified liner or leachate collection system that is found to be deficient or damaged during the term of this license unless determined otherwise by the MDEQ.

12. The licensee shall have repairs to any portion of the certified liner or leachate collection system recertified by a registered professional engineer in accordance with R 299.4921 of the Part 115 Rules and approved by the MDEQ before receiving waste in that portion of the certified liner or leachate collection system. The licensee shall submit the recertification to the MDEQ's OWMRP, Southeast Michigan District Office Supervisor, for review and approval.

13. The licensee shall conduct hydrogeological monitoring in accordance with the approved hydrogeological monitoring plan, dated January 2014, revised February 2014, and April 2015. The sampling analytical results shall be submitted to the MDEQ's OWMRP, Southeast Michigan District Office.

14. Modifications to the approved hydrogeological monitoring plan referenced in Item 13 may be approved, in writing, by the OWMRP, Southeast Michigan District Supervisor. Proposed revisions must be submitted in a format specified by the MDEQ.

15. Leachate may be recirculated if a leachate recirculation plan has been approved, in writing, by the OWMRP, Southeast Michigan District Supervisor.

16. Modifications to approved engineering plans that constitute an upgrading, as defined in R 299.4106a(l) of the Part 115 Rules, may be approved, in writing, by the OWMRP, Southeast Michigan District Supervisor.

17. Requests for alternate daily cover may be approved, in writing, by the OWMRP, Southeast Michigan District Supervisor.

18. Leakage Control Criteria:

    The active portions of the unit(s) authorized to receive waste by this license is a monitorable unit(s) which is located over a natural soil barrier and that is in compliance with the provisions of R 299.4422(2) of the Part 115 Rules.

19. **VARIANCES**: None.

20. **SPECIAL CONDITIONS**:

    a. The licensee shall place a compacted layer of not less than six inches of earthen material, unless an exemption is granted, of suitable cover material on all exposed solid waste by the end of each working day, as required by R 299.4429(1) of the Part 115 Rules. Suitable cover shall be either uncontaminated soil or an alternate cover approved by the OWMRP, listed in Item i, below. Alternate cover shall be restricted as indicated in Item ii and applied as per the approved operational plan submitted by the licensee.

        i. Approved alternate cover shall be any of the following:

Product/Waste Material	Source	Monthly Volume
Class A		
(1) Fabrisoil Phillips	Fibers Corporation	The quantities used per month is variable for all materials listed.
(2) Sanifoam	3M Company	
(3) Concover Newastecon, Inc.		
(4) Procover	Nicolan Corporation	
(5) Amoco 2001 and Amoco 2006	Amoco Oil Company	
(6) Rus Foam	Rusmar Incorporated	
(7) Envirofoam	Environmental Systems, Ltd.	
(8) Plastic Sheeting		
(9) Geotextile		
(10) Woven Mat		
(11) Spray-on Materials		
Class B		
(12) Alum Sludge		
(13) Wood Chips		
(14) Chipped Tires		
(15) Bottom Ash		
(16) Ground Shingles w/no fines or asbestos		

(17) Non-marketable compost material generated on-site
(18) N-Viro Soil

Class C

(19) Auto fluff

Ferrous Processing & Trading Co.	Approximately 83,000 tons/year from all sources
Strong Steel Products, LLC	Approximately 83,000 tons/year from all sources

ii. The above materials are approved for daily cover when used in the following manner:

(1) The licensee shall use the material as daily cover only. The material cannot be used for road building or fill in other areas of the Facility's operation.

(2) The licensee shall maintain copies of the testing performed on Class B and Class C materials in the facility operating record.

(3) The licensee shall only stockpile material in a secure manner within the active cell.

(4) This approval does not preclude the licensee from disposing of the material as waste in the active fill area instead of using the material as daily cover.

(5) This approval shall immediately become void upon documentation by the MDEQ that the alternative cover is not being used in accordance with listed conditions, that the alternative cover is not providing the necessary protection, that the material no longer meets the alternative daily cover guidelines, or that the process producing the waste material has changed.

(6) If the material does not meet the guidelines from Attachment 2 of Policy and Procedure OWMRP-115-10, for nonvolatiles, the licensee shall ensure that fugitive dust emissions from this material do not occur. Acceptable methods to ensure fugitive emissions do not occur are:

(a) Implement a schedule to wet down material; or

(b) Cover the material with a tarp; or

(c) Apply an approved foam or other appropriate commercial dust control product.

(7) This approval to use alternative cover shall expire upon expiration of this operating license.

b. Alternate cover shall be applied as per the Facility's Operational Plan for Alternative Daily Cover Materials (Class A and Class B) dated November 1997. Class B material shall only be stockpiled within an active cell.

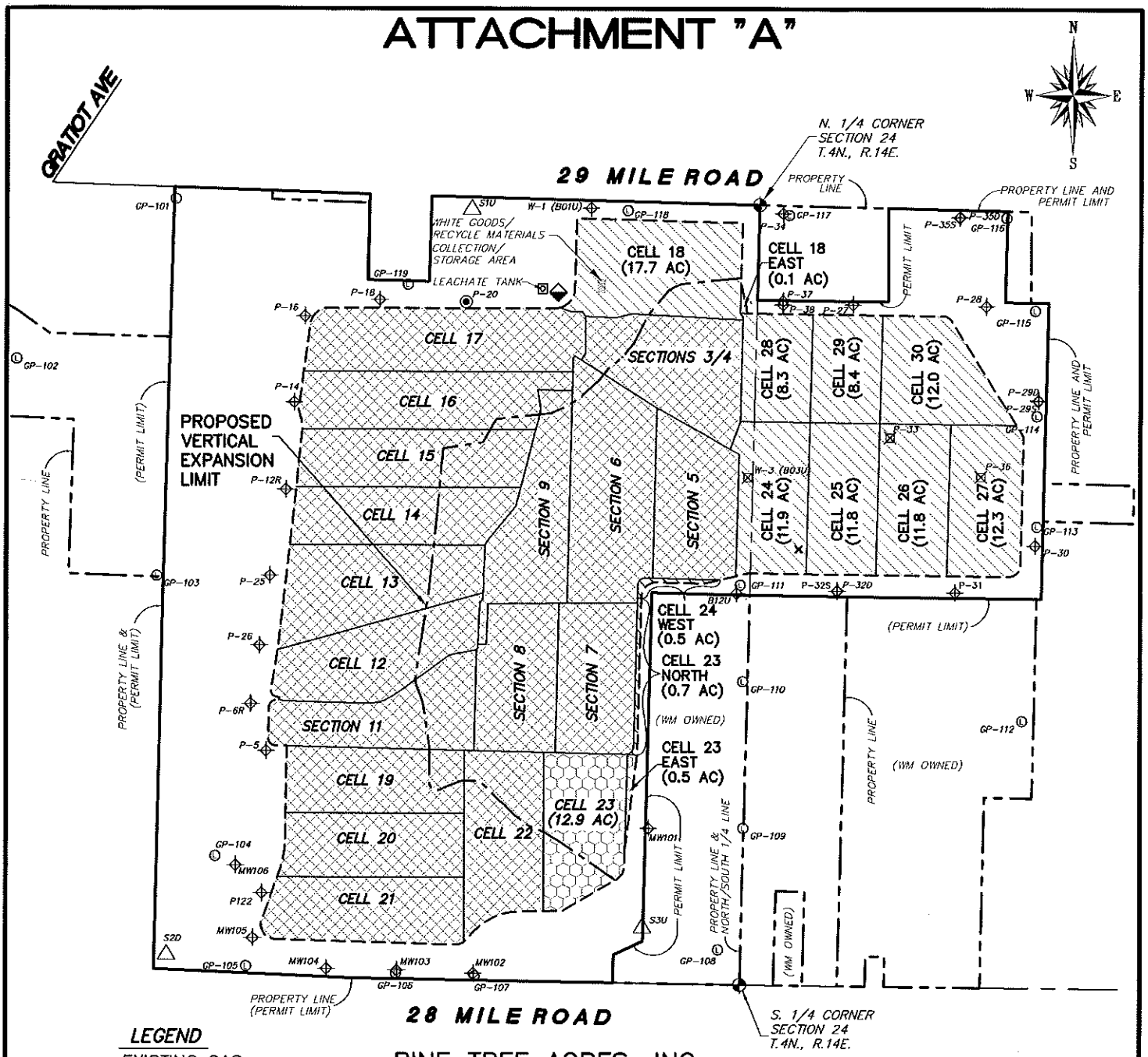
c. Class C petroleum contaminated soils being landfilled in accordance with the requirements of Part 213, Leaking Underground Storage Tanks of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.21301 et seq., and any regulations promulgated pursuant to this part can be used as an alternate daily cover. Quarterly reports containing the name of the generator, the location from which the soil originated, the volume used, and analytical results of analysis for the parameters listed in Attachment 1 of the MDEQ's OWMRP Policy and Procedure 115-10, shall be placed in the Facility's Operating Record.

d. The licensee shall notify the MDEQ within 48 hours of any fire incident at the Facility and shall place such notification in the Facility's Operating Record.

21. **TERM**: This license shall remain in effect until its expiration date, unless revoked or continued in effect, as provided by, the Administrative Procedures Act, 1969 PA 306, as amended, or unless superseded by the issuance of a subsequent license.

END OF LICENSE

ATTACHMENT "A"



LEGEND

- EXISTING GAS MONITORING PROBE
- P-33 EXISTING PIEZOMETER/ MONITORING POINT (TO BE ABANDONED)
- P-4 EXISTING GROUNDWATER MONITORING POINT
- P-20 EXISTING GROUNDWATER PIEZOMETER
- S05D EXISTING SURFACE WATER MONITORING POINT
- EXISTING LEACHATE COLLECTION SYSTEM SAMPLING POINT
- PROPERTY LINE
- SOLID WASTE LIMIT (AS PERMITTED & PROPOSED)
- PERMIT LIMIT (564.5 ACRES)

NOTE: SURFACE AND GROUNDWATER MONITORING LOCATIONS ARE APPROXIMATE.

PINE TREE ACRES, INC.

PART OF SECTIONS 23 & 24 T.4S., R.14E.
MACOMB COUNTY, MICHIGAN
Scale: 1"=1000'

ACTIVE PORTIONS NOT AT FINAL GRADE		252.4 AC.
UNCONSTRUCTED AREAS W/O FINANCIAL ASSURANCE		95.5 AC.
PERMITTED CELL 18:	*17.7 AC.*	
PERMITTED CELL 18 EAST:	*0.1 AC.*	
PERMITTED CELL 23 NORTH:	*0.7 AC.*	
PERMITTED CELL 24 WEST:	*0.5 AC.*	
PERMITTED CELLS 24-30:	*76.5 AC.*	
UNCONSTRUCTED AREAS W/ FINANCIAL ASSURANCE		13.4 AC
PERMITTED CELL 23:	*12.9 AC.*	
PERMITTED CELL 23 EAST:	*0.5 AC.*	
ISOLATION AND ANCILLARY AREA		203.2 AC.
EXISTING TOTAL PERMITTED AREA		564.5 AC.

DATE: 8/19/2015 • JOB NO: 7245.101
DWG NAME: 7245.101LC (8-19-2015).dwg