



FACILITY COMPLIANCE AUDIT REPORT
Division of Waste Management
Solid Waste Section

UNIT TYPE: (check all that apply to this audit with same Permit number)

Lined MSWLF		LCID		YW		Transfer		Compost		SLAS		COUNTY: Lincoln Co. PERMIT NO.: 55-02 FILE TYPE: COMPLIANCE
Closed MSWLF	X	HHW		White goods		Incin		T&P		FIRM		
CDLF		Tire T&P / Collection		Tire Monofill		Industrial Landfill		DEMO		SDTF		

Date of Audit: August 13, 2014

Date of Last Audit: April 13, 2011

FACILITY NAME AND ADDRESS:

Owls Den MSW Landfill - Closed
 701 Owls Den Road (SR-1203)
 Howards Creek, NC

GPS COORDINATES:

N: 35.48597° W: -81.31091° (ACME Mapper)

FACILITY CONTACT NAME AND PHONE NUMBER:

Mark Bivins – Solid Waste Manager
 Phone (704) 732-9030
 Fax: (704) 732-9048
mbivins@lincolncounty.org

FACILITY CONTACT ADDRESS:

W. Tracy Jackson
 Lincoln County Manager
 115 W. Main St.
 Lincolnton, NC 28092
 (704) 736-8471

AUDIT PARTICIPANTS:

Bill Wagner, Environmental Senior Specialist, Solid Waste Section

STATUS OF PERMIT:

In-active: Site closed in accordance with 15A NCAC 13B .0510 on April 21, 1989

PURPOSE OF INSPECTION:

Comprehensive compliance inspection.

STATUS OF PAST NOTED VIOLATIONS:

None

The item(s) listed above were observed by Section staff and require action on behalf of the facility in order to come into or maintain compliance with the Statutes, Rules, and/or other regulatory requirements applicable to this facility. Be advised that pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Laws, Regulations, Conditions of a Permit, or Order under Article 9 of Chapter 130A of the N.C. General Statutes. Further, the facility and/or all responsible parties may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

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SITE HISTORY and BACKGROUND:

MSWLF Facility Permit No. 55-02	Date	Document ID No.
Landfill Operations Begun	April 6, 1973 ¹	N/A
Landfill Operations Ceased	December 1987	N/A
Landfill Closed – Closure Letter Issued (i.a.w. 15A NCAC 13B .0510)	April 21, 1989	N/A
Groundwater and Methane Assessment Plans Required (per Jaclynne Drummond, Hydrogeologist – SWS)	November 8, 2007	N/A
<i>Site Assessment Plan</i> , Lincoln County-Owl’s Den Landfill (Groundwater and Methane)	September 5, 2008	N/A
Approval of <i>Site Assessment Plan</i> (Groundwater and Methane)	October 16, 2008	N/A
Updated Surface Water, Groundwater, and Methane Assessment Plans Required (per Jaclynne Drummond, Hydrogeologist – SWS)	May 20, 2010	N/A
<i>Corrective Action Plan</i> (CAP) per the May 20, 2010 Requirement for Updated Assessment Plans	July 16, 2010	N/A
Approval of <i>Corrective Action Plan</i> (CAP) submitted on July 16, 2010	August 31, 2010	N/A
<i>Grading Plan</i> (Submitted as an addendum to the approved CAP), Owl’s Den Landfill, Permit No. 55-02 Lincoln County	October 1, 2010	12169
Approval of <i>Grading Plan</i>	December 3, 2010	N/A
<i>Corrective Action Report</i> Owl’s Den Landfill, Permit No. 55-02 Lincoln County	August 29, 2012	N/A

¹ S&ME (July 16, 2010), *Corrective Action Plan – Owl’s Den Landfill, Permit No. 5-02*, pg. 4

OBSERVED VIOLATIONS:

None.

The item(s) listed above were observed by Section staff and require action on behalf of the facility in order to come into or maintain compliance with the Statutes, Rules, and/or other regulatory requirements applicable to this facility. Be advised that pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Laws, Regulations, Conditions of a Permit, or Order under Article 9 of Chapter 130A of the N.C. General Statutes. Further, the facility and/or all responsible parties may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

ADDITIONAL COMMENTS

1. While the entrance to the site is controlled by a locked gate, access to the site can be made through the “convenience center” on Owls Den Road. (Photo #1)
2. While most of the landfill had recently been mowed, some areas are still in need of mowing. (Photo #2 and #4-#6)
3. While edge-of-waste markers clearly delineated most of the landfill (Photo #3), some of the markers were located in areas that were in need of mowing (Photo #4).
4. Overall the landfill has an established and well maintained vegetative cover.
5. No areas of water impounded over waste were observed.
6. No excessive on-site erosion was observed.
7. No leachate seeps or breakouts were observed.
8. Based on elevated levels of groundwater contamination and elevated levels of landfill gas, on November 8, 2007 the Solid Waste Section (SWS) required Lincoln County to submit a groundwater and methane assessment plans. On behalf of Lincoln County, S&ME submitted the requested plans to the SWS on February 28, 2008. On September 5, 2008 the Solid Waste Section (SWS) approved a *Site Assessment Report* that was submitted in response to the request of February 28, 2008.
9. The *Grading Plan*, as specified in the approved CAP, was implemented and completed in June 2011.

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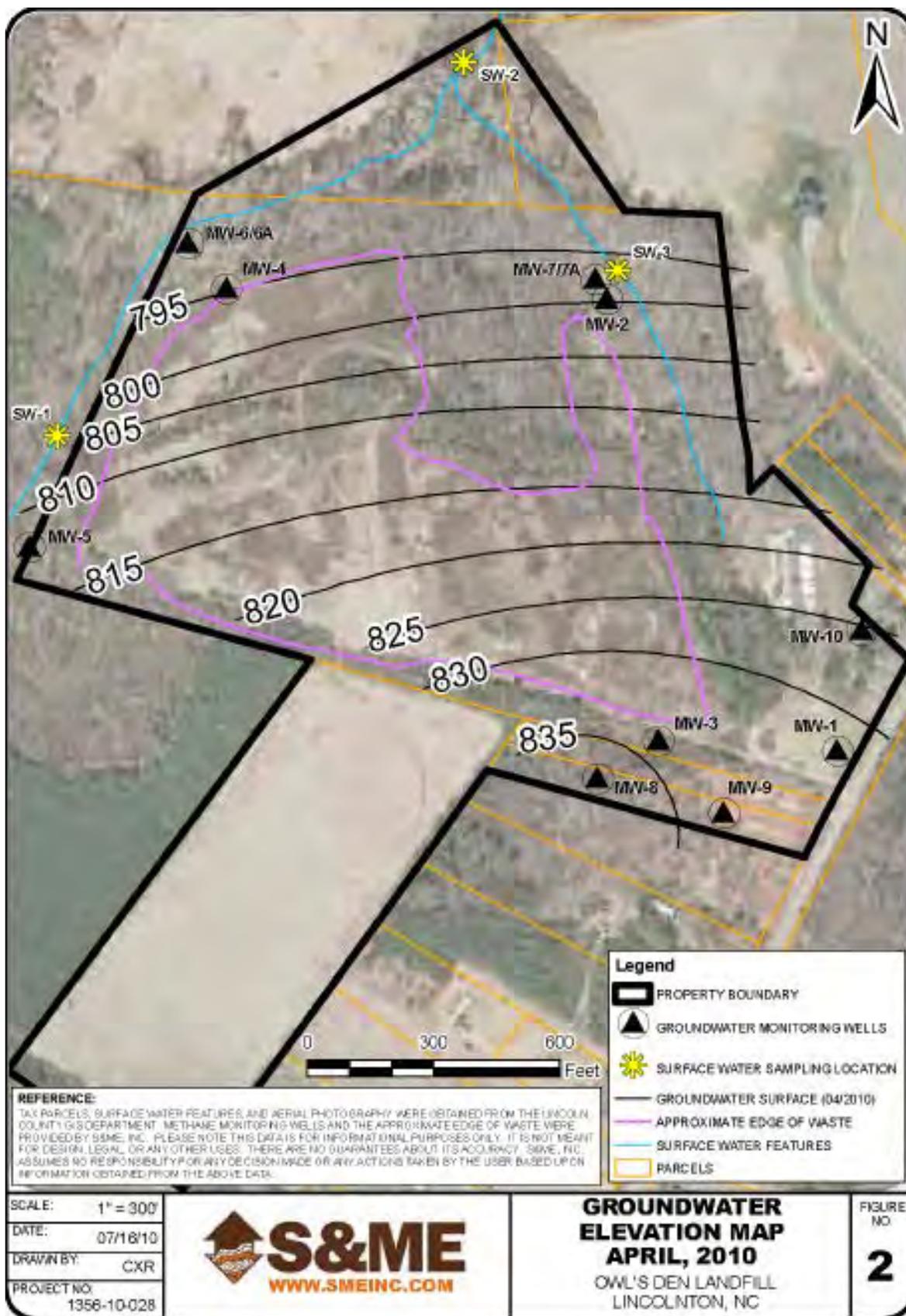


Figure 1: Lincoln Co. GIS Aerial: Owl's Den Closed MSW Landfill 55-02
 (With the Approximate Groundwater Monitoring Well Locations)

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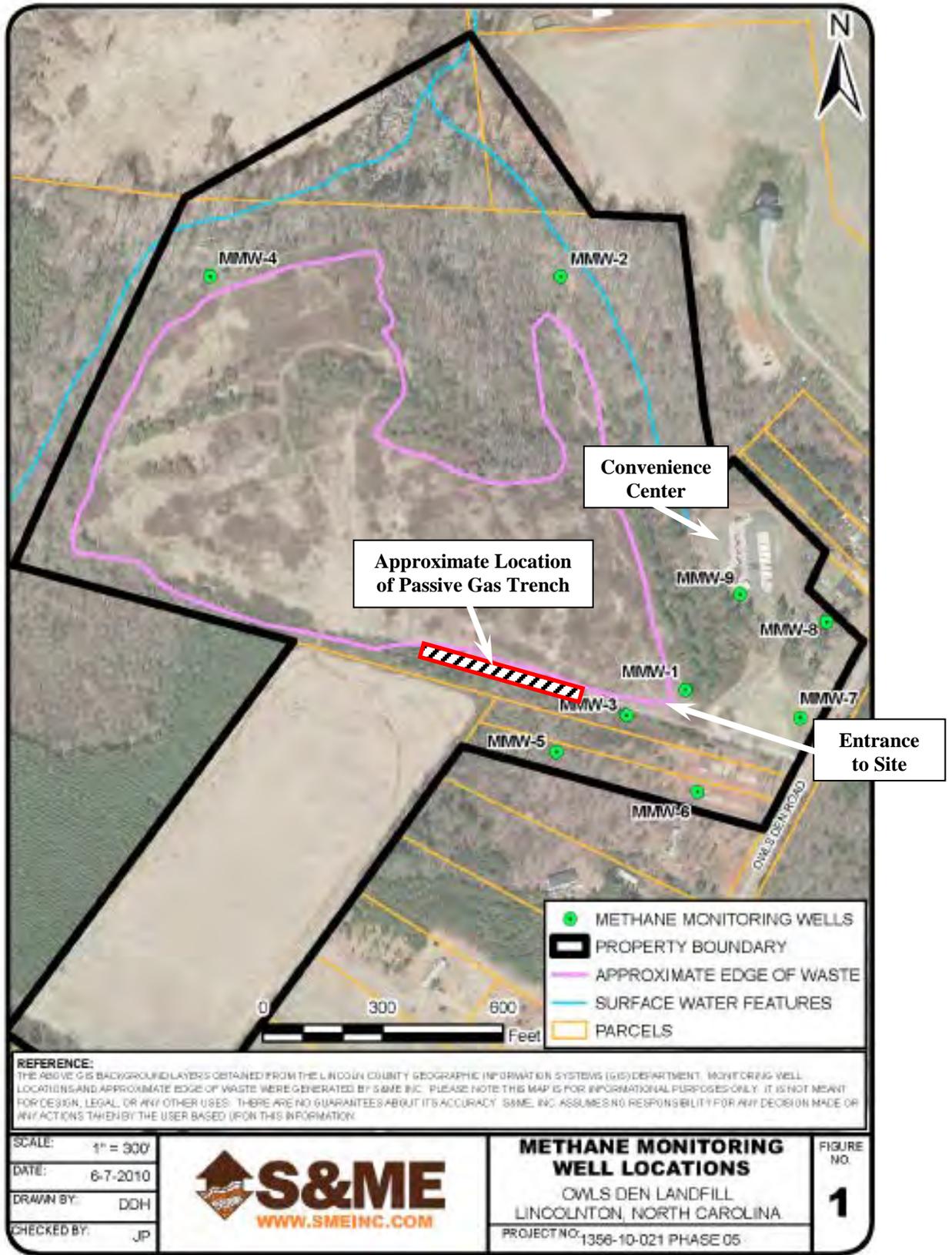


Figure 2: Lincoln Co. GIS Aerial: Owls Den Closed MSW Landfill 55-02
 (With the Approximate Methane Monitoring Well Locations)

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1. Entrance to the convenience on Owls Den Road.



2. Looking (SSW) down the SSW side of the landfill from just inside of the entrance. (Note the "island" of un-cut vegetation that needs to be mowed.)



3. Edge-of-waste marker in an area that has recently been mowed.



4. Edge-of-waste marker in an area that needs to be mowed.



5. Looking (E) from near MW-4, across the landfill. Note the vegetation in the foreground needs to be cut.



6. Looking (NNE) along the western edge of waste, in the area of MW-4. Note the vegetation on the left that needs to be cut.

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WATER QUALITY MONITORING

10. Required semi-annual analysis of water samples of one background monitoring well (MW-1) and ten existing groundwater monitoring wells (MW-2,4,5,6,6A,7,7A,8,9, and 10) and surface water monitoring from three locations (SW-1,2, and 3) was last completed on April 17 & 18, 2014, by S&ME, Inc. (Figure 1)
11. Three surface water points (SW-1, 2, and 3) are monitored semi-annually. SW-1 is the background surface water sampling point.
12. All of the groundwater and surface water samples were analyzed for the Federal Appendix I list of volatile organic constituents and for the eight RCRA metals.
13. A random inspection of the groundwater methane monitoring wells found all inspected to be properly labeled and secured. (Photos #7 & #8)



7. Ground water monitoring well (typical) properly locked and labeled.



8. Ground water monitoring well MW-10 on the right and methane monitoring well MMW-8 on the left, properly locked and labeled.

LANDFILL GAS MONITORING

14. As required by the approved CAP, a 400-foot long passive gas trench with five positive gas vents (T-1 through T-5 installed at 100-foot intervals along the trench) was installed along the edge of waste on the southern boundary. (Figure #2 and Photos #7 & #9)
15. Landfill gas monitoring wells has been conducted since June 2010.
16. Monthly landfill gas monitoring of MMW-2,4,5,6,7,8, and 9 (Figure 2) is done by Lincoln County Landfill staff using a *GEM 2000* combustible gas meter. (Landfill gas monitoring wells MMW-1 and MMW-3 have been removed from the monitoring plan.) The most recent monitoring occurred was conducted on April 18, 2014. (Figure 1)
17. Landfill gas monitoring is also done of the residence at 659 Owl's Den Road whenever the County can get permission from the occupant.



9. Looking (SSW) down the SSW side of the landfill from just inside of the entrance. Note the "line" of five positive gas vents on the left.

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18. The integrity of the cap of the landfill must be properly maintained. Proper and necessary maintenance of the cap includes, at a minimum:

- Mowing the cap as needed to prevent the establishment of trees and woody vegetation;
- Repairing the effects of any surface erosion or subsidence;
- Maintaining the slope of the cap to ensure the controlled shedding of surface water;
- Maintaining the slope of the cap to prevent the ponding of water over waste;
- Establishing and maintain native grasses to stabilize the cap;
- Initiate adequate erosion control measures to prevent excessive on-site erosion; and to prevent silt from leaving the site.

Please contact me if you have any questions or concerns regarding this audit report.



Bill Wagner
Environmental Senior Specialist

Phone: 828-296-4705.

Mailed on : <u>August 20, 2014</u> by:		Hand Delivery	X	US Mail	Certified Mail:
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cc: Jason Watkins, Field Operations Branch Head – Solid Waste Section
Sarah Rice, Compliance Officer – Solid Waste Section
Jaclynne Drummond, Hydrogeologist – Solid Waste Section
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