2011 Annual Inspection for the Parkersburg, West Virginia, Nuclear Waste Policy Act Section 151(c) Disposal Site

Summary

The Parkersburg, West Virginia, Site was inspected on October 5, 2011, to confirm the integrity of visible features and to determine the need, if any, for maintenance, additional inspections, or monitoring. The disposal cell was in excellent condition. No evidence of erosion or slope instability on the disposal cell was noted during the inspection.

Vegetation control was improved over last year, but problem areas still exist. Spraying for poison hemlock has allowed teasel to take hold in its place. It is recommended that the spraying program be amended next year to include spraying for teasel and that after areas are sprayed for teasel that they be seeded with a grass seed mixture.

All site monuments were in good condition. In 2011, the damaged boundary monument at location BM–2 was replaced and boundary monument BM–4 was raised making it easier to locate.

Monitoring wells at Parkersburg are sampled once every five years. They were last sampled in 2008 and are scheduled to be sampled next in 2013. All of the monitoring wells encountered during the inspection were properly secured.

1.0 Introduction

This report presents the findings of the annual U.S. Department of Energy (DOE) inspection of the Nuclear Waste Policy Act (NWPA) Section 151(c) disposal site at Parkersburg, West Virginia. M. Miller (Chief Inspector) and K. Broberg (Assistant Inspector), with S.M. Stoller Corporation, the DOE Legacy Management (LM) Contractor, conducted the inspection on October 5, 2011. C. Carpenter, DOE LM also participated in the inspection.

Two representatives from the DOE LM FIMs group were present during the inspection (T. Sanson and G. Odon (both with JGMS)) to conduct an Asset Condition Assessment

2.0 Institutional Controls

Institutional controls at the disposal site consist of federal ownership of the property. This is backed up with physical access controls (warning signs and a chain link security fence). No use restrictions have been placed on off-site property.

Inspectors saw no evidence for violation of any of the above stated restrictions during the site inspection.

3.0 Inspection Results

Features discussed in this report are shown on the attached inspection drawings (Sheet 1 shows physical features and Sheet 2 is a vegetation map). Photographs to support specific observations are identified on the appropriate sheet using a photograph location (PL) number.

3.1 Site Access

The Parkersburg site is immediately adjacent to land owned by the Northwest Pipe Company. Access to the site from Northwest Drive (formerly called Foster Drive) crosses a field being used for soccer. The access route is along a permanent 20-foot-wide right-of-way. The access road was found to be in good shape.

3.2 Entrance Gate and Security Fence

Both the entrance gate and security fence were replaced in 2007 and remain in excellent condition. The entrance gate was found to be locked with a non-DOE lock, left by the vegetation management subcontractor. This lock was cut off of the fence a few weeks after the inspection and replaced with a proper DOE lock.

Vegetation management efforts along the fence are improved from last year. A vegetation free zone is being maintained along the base of the fence. (PL–1)

Animal burrows are present under the west perimeter fence. A couple of the burrows are quite large. The location of the burrows is noted on the site inspection map to alert future inspectors to potential tripping hazards.

3.3 Entrance Sign and Perimeter Signs

The site has one entrance sign and fifteen perimeter signs. All of the signs are in good condition.

3.4 Boundary Monuments

The site has six boundary monuments. All of the boundary monuments were located during the inspection and were in good condition. As a follow up to last year's inspection, boundary monument BM–2 was replaced (PL–2), and boundary monument BM–4 was raised, making it easier to locate (PL–3 and PL–4).

3.5 Monitoring Wells

There are six groundwater monitoring wells at the Parkersburg site. All six wells are located inside the security fence. The wells are numbered in the chronological order in which they were drilled and installed.

Of the six monitoring wells, well construction and completion records for wells 1 through 4 are incomplete; therefore only wells 5 and 6 are routinely sampled every five years for water quality parameters. Water levels are collected every five years though at all 6 wells. Sampling and water level measurements were last collected in 2008 and are scheduled again in 2013.

3.6 Disposal Cell and Area Inside Security Fence

The grass covered disposal cell was in excellent condition. No evidence of erosion or slope instability on the disposal cell was noted during the inspection. Dominant vegetation consists of fescue, crown vetch, and goldenrod. The vegetation on the disposal cell cover, essentially in the area inside the security fence, appeared healthy and vigorous. More attention needs to be given to cutting weeds and grass around the monitoring wells.

3.7 Area Between Security Fence and Property Boundary

The drainage channel in the southwest corner of the site, lined with HDPE honeycomb baffles and brick energy dissipation baffles in August 1996, is in good condition and functioning as designed (PL–5). Additional erosion does not appear to be occurring.

3.8 Outlying Area

The Parkersburg site is in a developed industrial area. Inspectors observed that a pipe lay-down area next to the site has increased in size since last year's inspection (PL–6 and PL–7).

3.9 Poisonous and Noxious Weed Control

Poisonous and noxious weed control continues. Species of poisonous or noxious weeds present at the Parkersburg site include Canada thistle, poison hemlock, Johnsongrass, poison ivy, and teasel.

Canada thistle was first identified at the site in 1999, primarily along the security fence. This weed is not a listed noxious species in West Virginia, but it is considered noxious in the neighboring states of Ohio and Pennsylvania. It seemed to be out competing desirable species on the site, as it had spread to a significant portion of the cell cover and perimeter. As a best management practice to maintain plant diversity on the property, DOE added control of this species to the scope of routine maintenance activities in 2001. No large areas of Canada thistle were noted during this year's inspection.

Poison hemlock was discovered on the site in 2003. In the past, plants had grown to heights of up to 10 feet and covered approximately 4 acres on and around the cell. Poison hemlock is a listed noxious weed species in West Virginia; and it poses a safety hazard to personnel who must walk through or work in infested areas, as all parts of the plant are poisonous. Poison hemlock poses a particular hazard to children, who often play in the soccer fields adjacent to the site. Spraying for poison hemlock this past year has allowed teasel to take hold in its place, especially in the northwest corner of the site (PL–8). It is recommended that the spaying program be amended next year to include spraying for teasel and that after areas are sprayed for teasel that they be seeded with a grass see mixture..

Johnsongrass is a listed noxious weed species in West Virginia and was first identified at the site in 2003. It reproduces by horizontal roots and by seed and can be controlled with herbicide. No large areas of Johnsongrass were noted during this year's inspection.

No large areas of poison ivy were noted during this year's inspection.

4.0 Recommendations

1) Spraying for poison hemlock this past year has allowed teasel to take hold in its place, especially in the northwest corner of the site (page 3).

   Recommendation: It is recommended that the spaying program be amended next year to include spraying for teasel and that after areas are sprayed for teasel that they be seeded with a grass seed mixture.

5.0 Photographs

Photo Location Number	Azimuth	Description
PL–1	225	South corner of perimeter fence.
PL–2	NA	Boundary monument BM–2.
PL–3	NA	Boundary monument BM–4.
PL–4	NA	Boundary monument BM–4.
PL–5	NA	Erosion control baffles.
PL–6	330	Pipe, off-property, northeast of site.
PL–7	45	Pipe, off-property, northeast of site.
PL–8	300	North corner of perimeter fence.

PKB 10/2011. PL–1. South corner of perimeter fence.

PKB 10/2011. PL–2. Boundary monument BM–2.

PKB 10/2011. PL–3. Boundary monument BM–4.

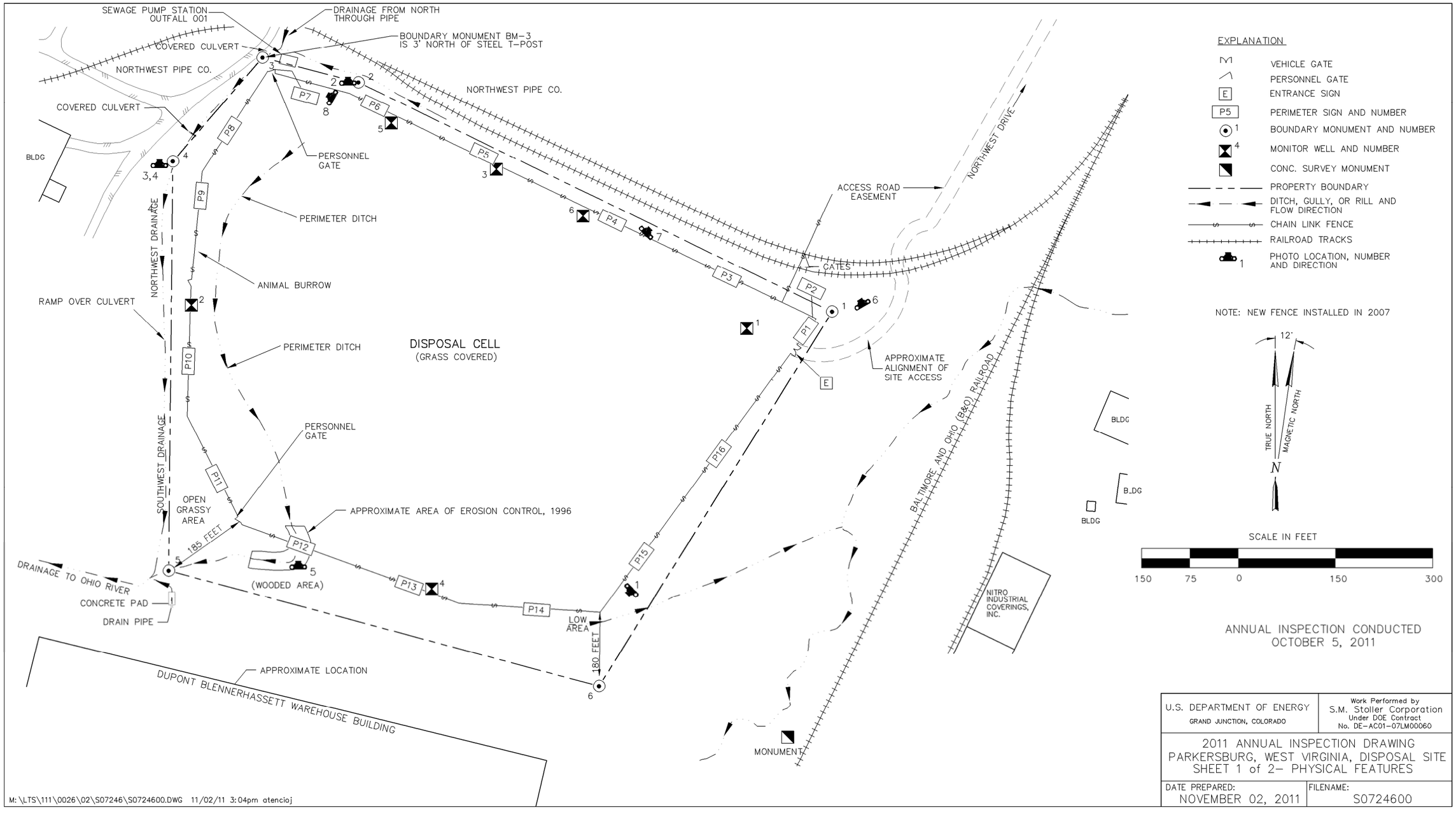
PKB 10/2011. PL–4. Boundary monument BM–4.

PKB 10/2011. PL–5. Erosion control baffles.

PKB 10/2011. PL–6. Pipe, off-property, northeast of site.

PKB 10/2011. PL–7. Pipe, off-property, northeast of site.

PKB 10/2011. PL–8. North corner of perimeter fence.



ANNUAL INSPECTION CONDUCTED
OCTOBER 5, 2011

U.S. DEPARTMENT OF ENERGY GRAND JUNCTION, COLORADO	Work Performed by S.M. Stoller Corporation Under DOE Contract No. DE-AC01-07LM00060
2011 ANNUAL INSPECTION DRAWING PARKERSBURG, WEST VIRGINIA, DISPOSAL SITE SHEET 1 of 2- PHYSICAL FEATURES	
DATE PREPARED: NOVEMBER 02, 2011	FILENAME: S0724600

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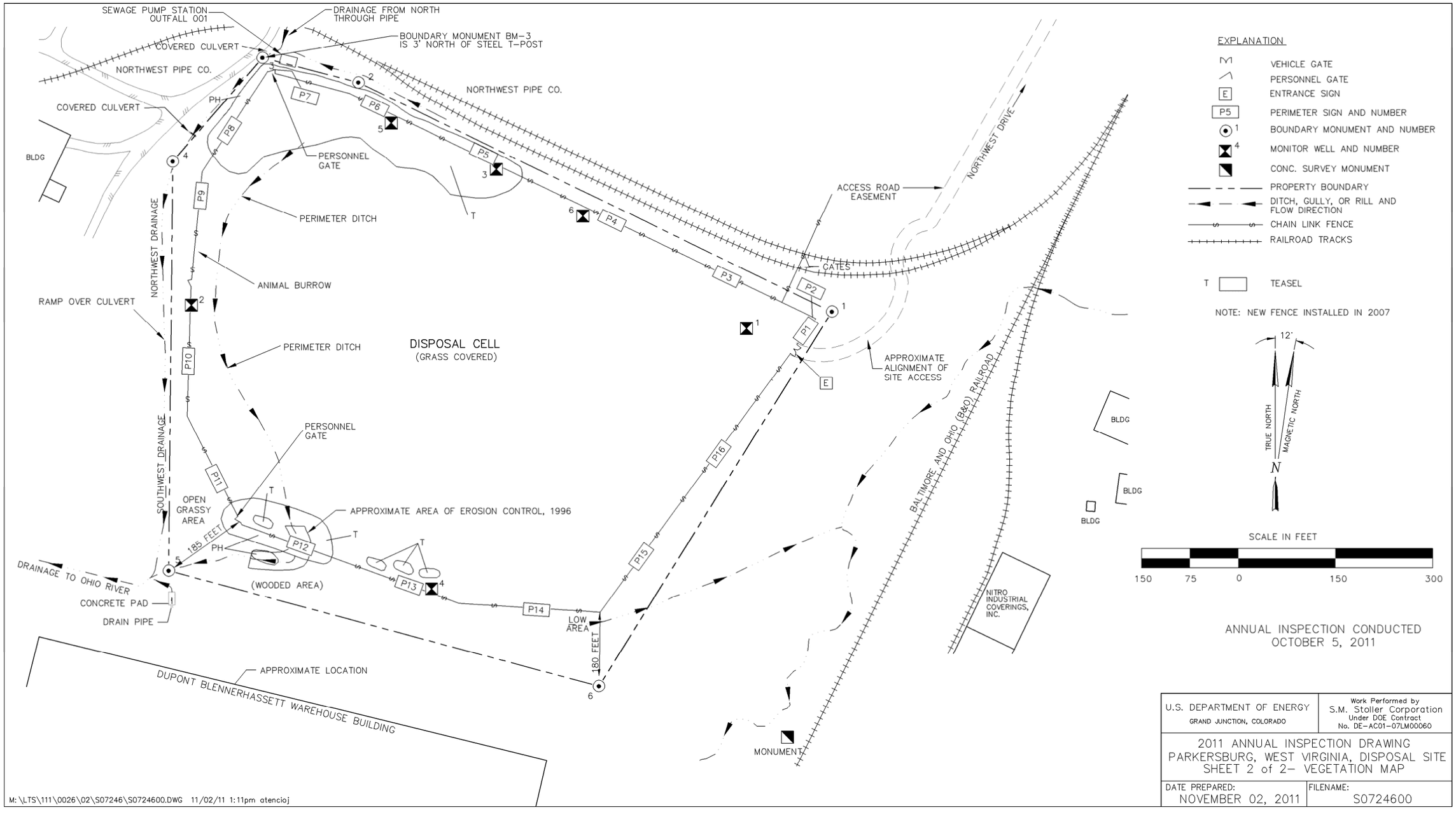

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2011 ANNUAL INSPECTION DRAWING PARKERSBURG, WEST VIRGINIA, DISPOSAL SITE SHEET 2 of 2- VEGETATION MAP	
DATE PREPARED: NOVEMBER 02, 2011	FILENAME: S0724600

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