HoustonEngineering Inc.

Maple Grove, MN | HEI No. 6077_024
September 14, 2016

NUSTAR PIPELINE
Topsoil Removal Inspection Report

North Dakota LEGENDARY
Public Service Commission

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1 EXECUTIVE SUMMARY

The North Dakota Public Services Commission (NDPSC) has contracted with Houston Engineering, Inc. (HEI) to perform permit compliance inspection services for the Nustar Pipeline Express, LLC project, (Case No. PU-15-674), an 8-inch pipeline spanning 7.3 miles near the city of Prosper in Cass County, North Dakota. This report documents the inspection compliance site visit, which was conducted on August 23, 2016. This site visit focused on observation of the topsoil separation activities conducted by the contractors.

The site was inspected by Steven Strack, Civil Engineer. Steven coordinated with Dale Smith, the site manager of NuStar Energy, while on site. HEI observed topsoil separation activities during the inspection site visit. Based on our observations on site, we conclude that the contractor is proficient in segregation of topsoil material. The methods utilized were appropriate for the site and site conditions.

2 INTRODUCTION AND PURPOSE

HEI was contractually hired by the NDPSC to perform construction inspection services for an 8-inch crude oil pipeline known as the NuStar Pipeline Project (*PSC. Case No. PU-15-674*). The purpose of the construction inspection service is to determine compliance with the permit issued by the NDPSC. The following is a summary of the work completed to date and the anticipated timeframe for the completion of the permit compliance review. The completed permit compliance site visit represents the first required construction inspection; future site visits include one additional compliance inspection during construction, one inspection immediately after construction is complete, and one final inspection, conducted one-year after reclamation activites have been completed review restoration success. The purpose of this inspection report is document the activities observed on August 23, 2016 for the topsoil separation activities.

3 SITE VISIT SUMMARY AND CONCLUSION

HEI arrived at the north end of the route at 9:30am CDT on August 23, 2016. Upon arrival, HEI observed topsoil separation and clearing and grubbing activites that were underway on the north side of the pipeline corridor (**Figure 1**). Steven met with Dale Smith and discussed the topsoil stripping, separation and stockpiling operations that were underway. The contractors approach included the use of a dozer to scrape topsoil material to one side of the construction easement and stockpiled at the easemenet edge. The trench material will then be excavated using a backhoe, and excavated material will be piled next to the open trench (see diagram, **Figure 2**). This will allow for easy backfilling of the trench material. HEI observed separation activities for approximately 2 hours. During this time it was clear that the contractor is proficient in separation techniques. HEI concludes that the contractors are proficient in the successful separation and segregation of topsoil material, and it is anticipated that this technique will continue throughout the right-of-way corridor separation activities.

4 FUTURE PLANNED ACTIVITIES

HEI will perform the second permit compliance site visit as construction progresses. HEI will monitor construction progress to schedule our additional site visits. Based on the current pace of construction, HEI anticipates that the next site visit will occur during the Fall of 2016. As indicated previously, HEI will

complete one additional site visit during active construction, one visit to observe as-built conditions, and one final inspection to observe the status of the restoration activities.

5 SITE PHOTOGRAPHY

Photo 1: Topsoil scraping to the construction easement edge.

Photo 3: Topsoil scraping and removal depth.

Photo 4: View of easement; topsoil segregation in progress.

Photo 5: Topsoil placement at construction easement edge.

Photo 6: Topsoil placement at construction easement edge.

FIGURES

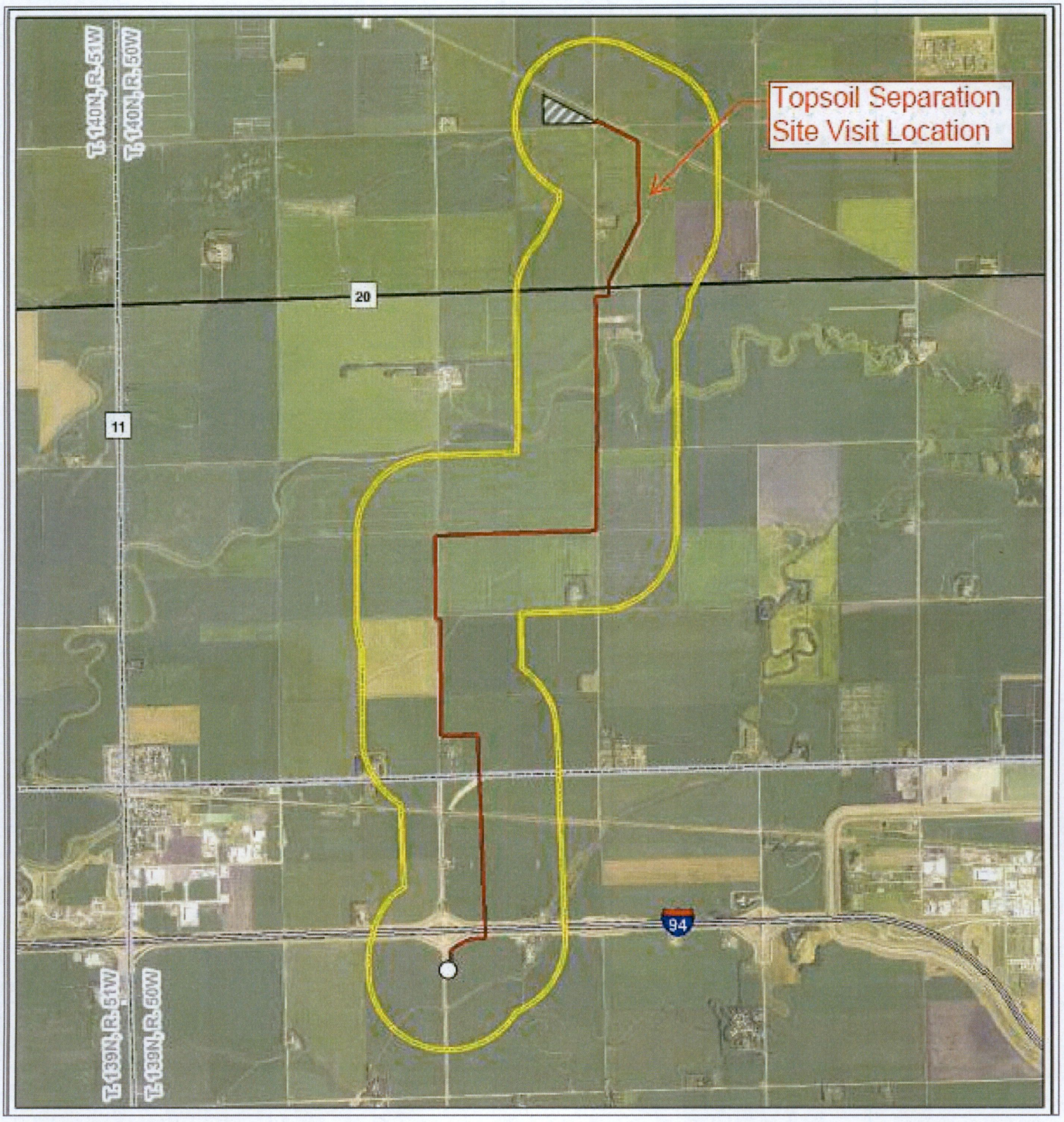

Figure 1: Topsoil Separation Site Visit Location Map

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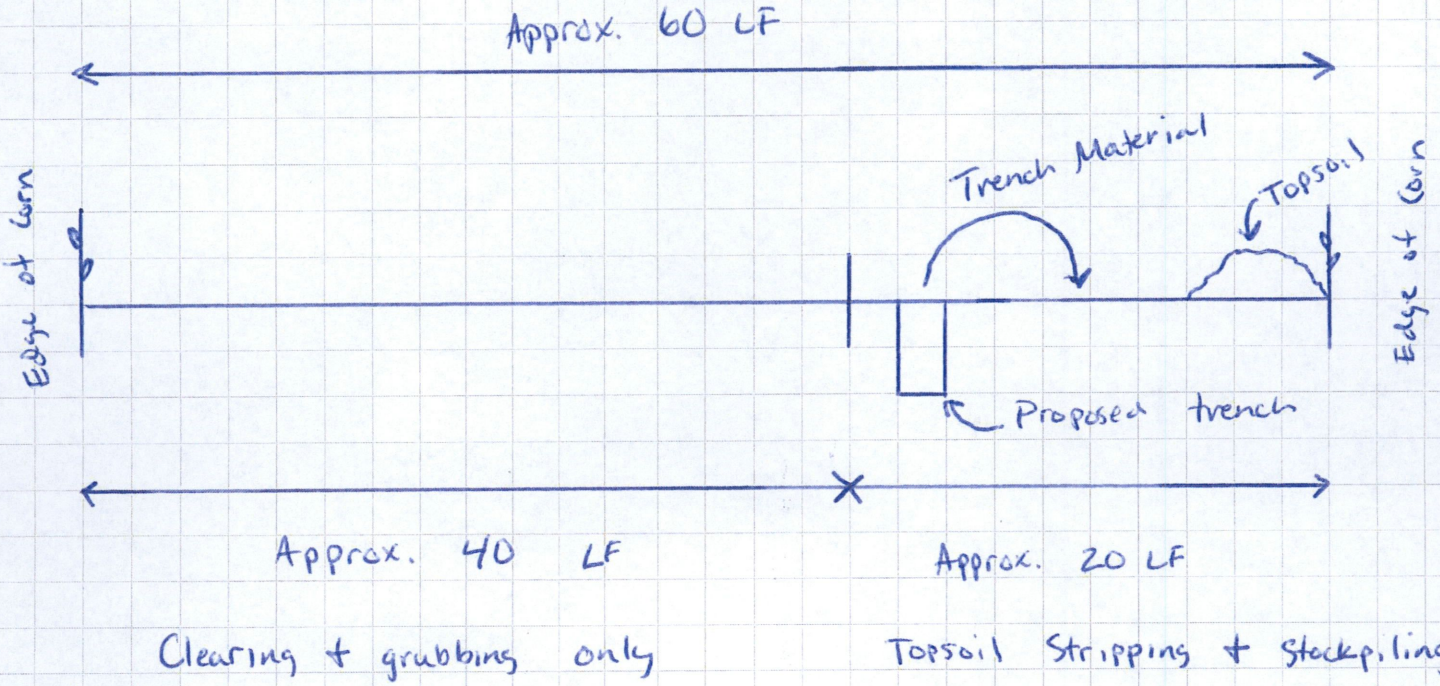
Topsoil Stripping

Steven Strack



Clearing + grubbing only

Topsoil Stripping + Stockpiling

Area to be used for laying out pipe, construction vehicles, etc.

Figure 2: Field diagram, topsoil separation