

Exhibit D

Phase IA Desktop Archaeological Review (Public Version)



July 2, 2021

Ms. Lori Cuervo
Director
BQ Energy Development LLC
400 Market Industrial Park, Suite 32
San Diego, CA 92128-195

Archaeological Desktop Analysis for Nottingham Solar LLC's Nottingham Solar Site, Harrison County, Ohio

Dear Ms. Cuervo:

WSP USA Inc. (WSP) conducted a desktop analysis for Nottingham Solar LLC at the Nottingham Solar Site (Project) in Harrison County, Ohio, which is being conducted in compliance with the Ohio Power Siting Board, Ohio Administrative Code Rule 4906-4. The desktop analysis was completed to understand what archaeological resources may be potentially affected by the proposed Project. A desktop review regarding architectural resources will be presented in a separate report.

Project Description

The project calls for the installation of solar arrays across an area that covers 485.77 hectares (1,200.36 acres) located west of New Athens, Ohio in Sections 17, 18, 23, 24, 29, and 30 of Township 9 North, Range 5 West. In general, the project will initially involve installation of temporary erosion and sediment control practices, minimal vegetation clearing, minimal grading, installation of temporary power, and construction of temporary laydown yards and access roads. Construction of the solar arrays will involve installation of steel posts and racking systems to support solar panels and DC collection circuits. The AC system will be installed via open cut method and buried underground or overhead. Horizontal directional drilling (HDD) may also be used when crossing environmentally sensitive features, such as wetlands or streams. Preliminary design includes a single Project Substation that will transform voltage from the 34.5-kV collection system to the 138-kV gen-tie line, which will connect to the existing AEP Nottingham substation located northeast of the Project area. Access roads will predominantly follow existing access paths, but some new access roads will also be constructed within the Project. The Facility will be surrounded by approximately 73,100 linear feet of security fencing. An additional 600 linear feet of high security fencing will be installed around the Project Substation.

Methodology

WSP's desktop analysis consisted of a records check/database review to determine the presence of any known cultural resources (archaeological and architectural) in the study area, defined as the area within a 1.6-kilometer (1-mile) radius extending from each side of the project area boundaries. The review identified resources listed in the National Register of Historic Places (NRHP), the Ohio State Historic Preservation Office (OHPO) Online Mapping System for architectural and archaeological sites (Ohio History Connection [OHC] 2021), and known cemeteries shown on United States Geological Survey (USGS) topographic maps and within the OHPO Online Mapping System and the Ohio Genealogical Society (2021). The review also

included examination of historical maps and aerial imagery. Figure 1 shows the project area, study area, previous areas surveyed, and the locations of known archaeological resources.

Background Research

Three previous archaeological investigations have been conducted in the study area (Table 1). One survey investigated three locations in the central portion of the project area for archaeological resources (see Figure 1). The locations were investigated in 2001 as part of a Phase I archaeological survey for a proposed surface mine (Smith 2001). Using both pedestrian survey and shovel testing methods, the survey investigated archaeologically sensitive areas identified by Dr. Jeffery Reichwein, Archaeologist for the Ohio Department of Natural Resources, Division of Mines and Reclamation. Two sites, 33-HN-107 and 33-HN-108, were identified in the current project area (Smith 2001). Archaeological site details are discussed below.

Two archaeological investigations have been conducted in the eastern part of the study area (east of the project area) (see Figure 1 and Table 1). These were Phase I and Phase II archaeological surveys for mining tract and transmission line projects (Beamer 1988; Weller 2014). Three archaeological sites, 33-HN-51, 33-HN-52, 33-HN-235, were identified in the current study area as a result of those investigations. Archaeological site details are discussed below.

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TABLE 1: PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS IN STUDY AREA

NADB/ SURVEY NO.	CITATION	PROJECT TYPE	SURVEY TYPE	SURVEY YEAR	WITHIN PROJECT AREA (Y/N)
14542	Smith 2001	Mining tract	Phase I	2001	Y
13075	Beamer 1988	Mining tract	Phase I, Phase II	1988	N
19779	Weller 2014	Transmission line	Phase I	2014	N

Source: OHC 2021

A total of 13 archaeological sites have been documented in the study area, consisting of seven historic sites and six prehistoric sites (Table 2). None of the sites has been evaluated for the NRHP.

Two of the previously recorded sites, 33-HN-107 and 33-HN-108, are located in the project area (see Figure 1 and Table 2). Both sites are associated with historic farmsteads. Site 33-HN-107 dates to the late nineteenth to early twentieth century, and Site 33-HN-108 dates to the mid-nineteenth century to early twentieth century. Smith (2001:i) reports that, because of modern mining activities at both sites, all structures at each site have been completely razed and portions of the sites have been mechanically graded. Smith (2001:i) recommends Sites 33-HN-107 and 33-HN-108 as not eligible for the NRHP. According to OHC (2021) data, the sites have not been evaluated for the NRHP.

TABLE 2: KNOWN ARCHAEOLOGICAL RESOURCES IN STUDY AREA

SITE NO.	SITE TYPE	NRHP STATUS	IN PROJECT AREA (Y/N)
33-HN-0107	Historic	Unevaluated	Y
33-HN-0108	Historic	Unevaluated	Y
33-HN-0051	Historic	Unevaluated	N
33-HN-0052	Prehistoric	Unevaluated	N
33-HN-0135	Historic	Unevaluated	N
33-HN-0136	Historic	Unevaluated	N
33-HN-0137	Historic	Unevaluated	N
33-HN-0138	Prehistoric	Unevaluated	N
33-HN-0139	Prehistoric	Unevaluated	N
33-HN-0140	Prehistoric	Unevaluated	N
33-HN-0141	Prehistoric	Unevaluated	N
33-HN-0235	Historic	Unevaluated	N
33-HN-0241	Prehistoric	Unevaluated	N

Source: OHC 2021

Current and Previous Land Use of Study Area

WSP reviewed historical maps and aerial imagery of the study area. The earliest survey map from the General Land Office dates to 1805 and describes Sections 17, 18, 23, 24, 29, and 30 as hilly terrain containing good to tolerable soil, first-rate oak, walnut, and hickory timber (Bureau of Land Management 1805).

The county atlas for Harrison County from 1875 shows private land divisions and roads in the project area (Caldwell 1875). The 1875 map depicts an east-west road that aligns with the present-day State Route (SR) 519 / Stumptown Road along the northern project area boundary. The USGS (1903) map of Flushing also depicts SR 519 as well as a north-south road that may depict Township Highway (TH) 261 / Muntz Road, although that road appears to be located east of its present-day alignment (USGS 1903).

A USGS (1953) Canton quadrangle depicts SR 519 as a loose surface road, graded and drained. This map also shows some areas of woodland just south of the project area. By 1961 the area is shown lacking woodland and clearly depicts the present-day alignments of SR 519 and TH 261 (USGS 1961). The USGS (1961) Flushing quadrangle also shows the first widespread strip mining activity throughout the project area.

Available Ohio Department of Natural Resources Mine maps and oil and gas wells maps, aerial photographs and topographic maps show widespread strip mining activity in the project area and broader southeastern Harrison County through 2005 (Ohio DNR 2021; Google Earth 2005; USGS 1976, 1994) (Attachment A, Figure 2). No ownership information is provided on maps until 2010, which indicates that the project area land and immediate vicinity were likely owned by the Consolidation Coal Company at that time (USGS 2010).

Historical aerial imagery of the project area dates to 1960, when the earliest known mining activity in the project area began. Strip mining activity in and near the project area apparently continued until the 2000s. Relatively little change is evident from aerial imagery from 2010 onward. Aerial imagery from 2017 shows a narrow corridor, approximately 45 meters (150 feet) wide running northwest-southeast through the eastern portion of the project area; this corridor is likely a buried pipeline (Google Earth Pro 2021; Nationwide Environmental Title Research [NETR] 2021). Two addition pipelines have been constructed within the project area recently.

Summary

WSP's desktop analysis and records check/database covered the proposed Nottingham Solar Site project area and a study area encompassing a 1-mile buffer around the project area. Historical maps and aerial imagery show roadways and unimproved roads present in and near the project area as early as 1875, but significant historic-era development has not occurred in the project area. Historical use of the project area and vicinity was dominated by coal mining beginning in ca. 1960 and appears to have peaked in the late twentieth century and continued through the 2000s.

A portion of the project area has been surveyed for archaeological resources, and two archaeological sites (Sites 33-HN-107, 33-HN-108) have been identified in the project area. An additional 11 archaeological sites have been documented in the study area.

Recommendations

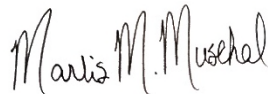
Based on work completed by Smith (2001) on Sites 33-HN-107 and 33-HN-108, WSP has sufficient information to recommend these sites as not eligible for the NRHP because they have been disturbed by mining activity and they lack the physical and contextual integrity necessary to address research questions about rural Appalachian history and the cultural landscape. The additional 11 archaeological sites, which are located outside the project area, will not be directly impacted by the project.

Additional archaeological survey is not necessary for the project area as it has been subject to historic-era mining activities (see blue shaded areas and signs of disturbance beyond the blue shaded areas on aerial imagery in Figure 2). According to the OHPO Archaeology Guidelines, "Areas which have been extensively graded or altered (through contemporary surface mining, construction, etc.) may sometimes be eliminated from further consideration. Note, however, that historic mining areas...may have gained significance in their own right" (OHPO 1994:16). The majority of the project area has been modified by contemporary mining activities, and although mining started as early as 1960 (NETR 2021), any historic mining areas have most likely been extensively graded and/or altered by subsequent mining efforts (see Figure 2).

Kind regards,



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Manager, Historic Preservation



Marlis M. Muschal
Archaeologist

MMM
Encl.
File: EE1009829.0002

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Bureau of Land Management

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- 1903 *Flushing Quadrangle*. Map scale 1:62,500. United States Geological Survey, Reston, Virginia.
- 1953 *Canton Quadrangle*. Map scale 1:25,000. United States Geological Survey, Reston, Virginia.
- 1961 *Flushing Quadrangle*. (HTMC, 1978 ed.). Map scale 1:24,000. United States Geological Survey, Reston, Virginia.
- 1976 *Coshocton Quadrangle*. Map scale 1:100,000. United States Geological Survey, Reston, Virginia.
- 1994 *Flushing Quadrangle*. Map scale 1:24,000. United States Geological Survey, Reston, Virginia.
- 2010 *Flushing Quadrangle*. Map scale 1:24,000. United States Geological Survey, Reston, Virginia.
- 2019 *Flushing, OH. 7.5-Minute Series Topographic Quadrangle*. United States Geological Survey, Reston, Virginia, <https://nationalmap.gov/ustopo/>.

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FIGURE 1: Proposed Nottingham Project Area in Harrison County, Ohio (OHC 2021; USGS Flushing 2019)

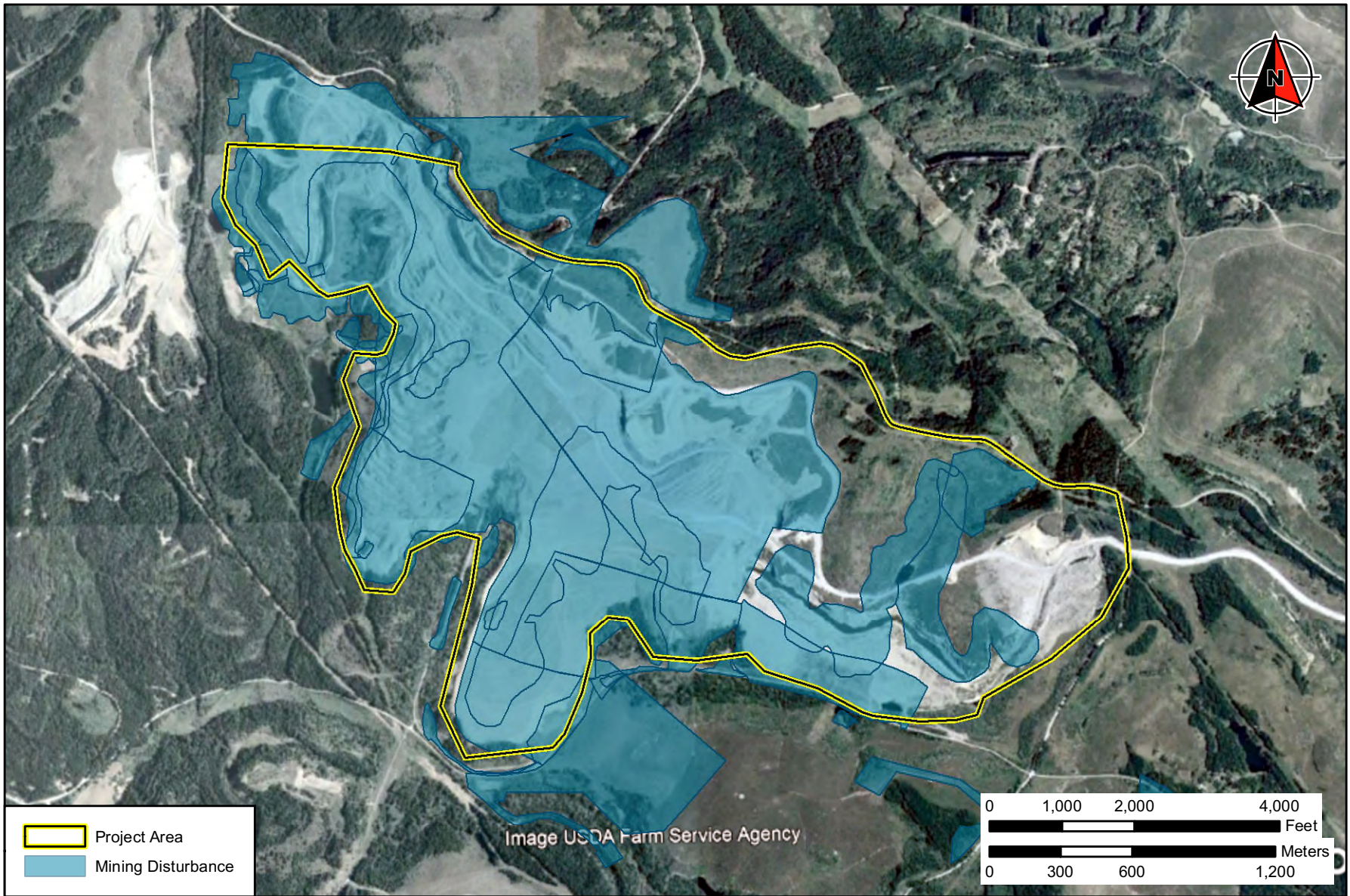


FIGURE 2: Historical Aerial Imagery of the Proposed Nottingham Project Area (Google Earth 2005)

ATTACHMENT A:
Ohio Department of Natural Resources Mining Maps

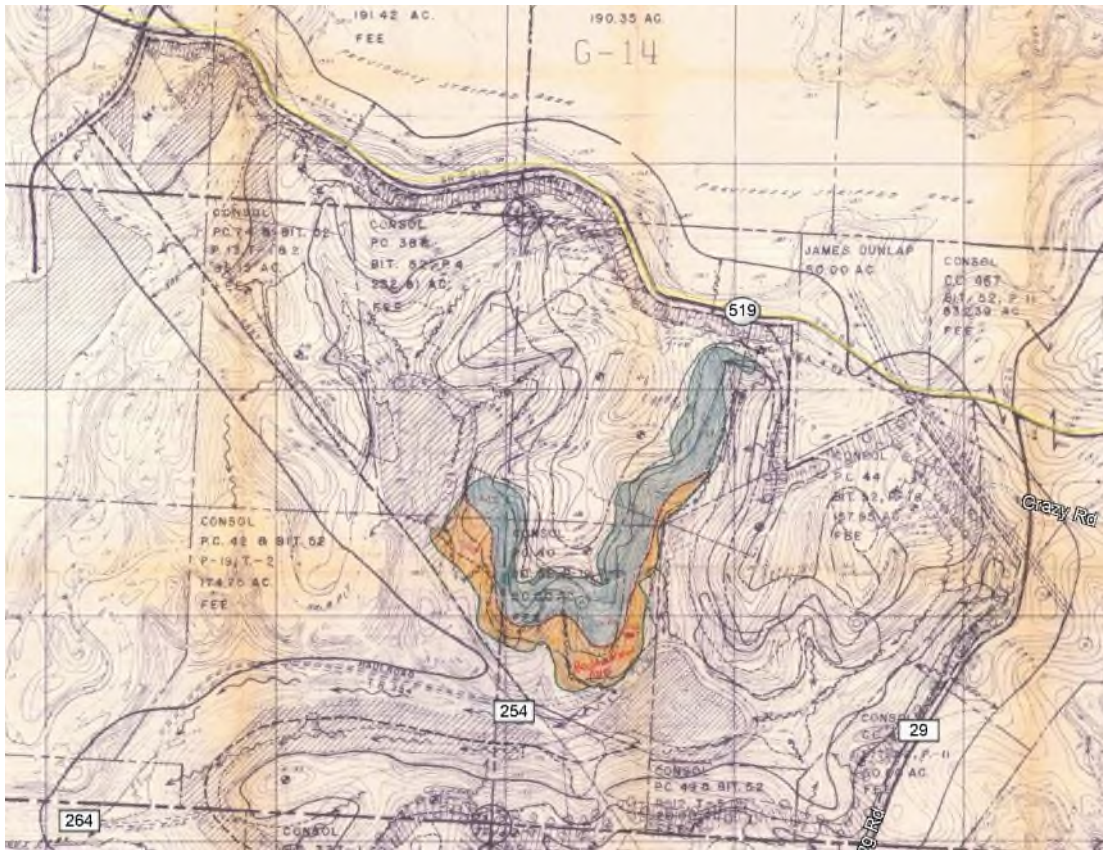


Figure A-1. Ohio DNR Mining Map A-0813, nd.



Figure A-2: Ohio DNR Mining Map A-1007, nd.

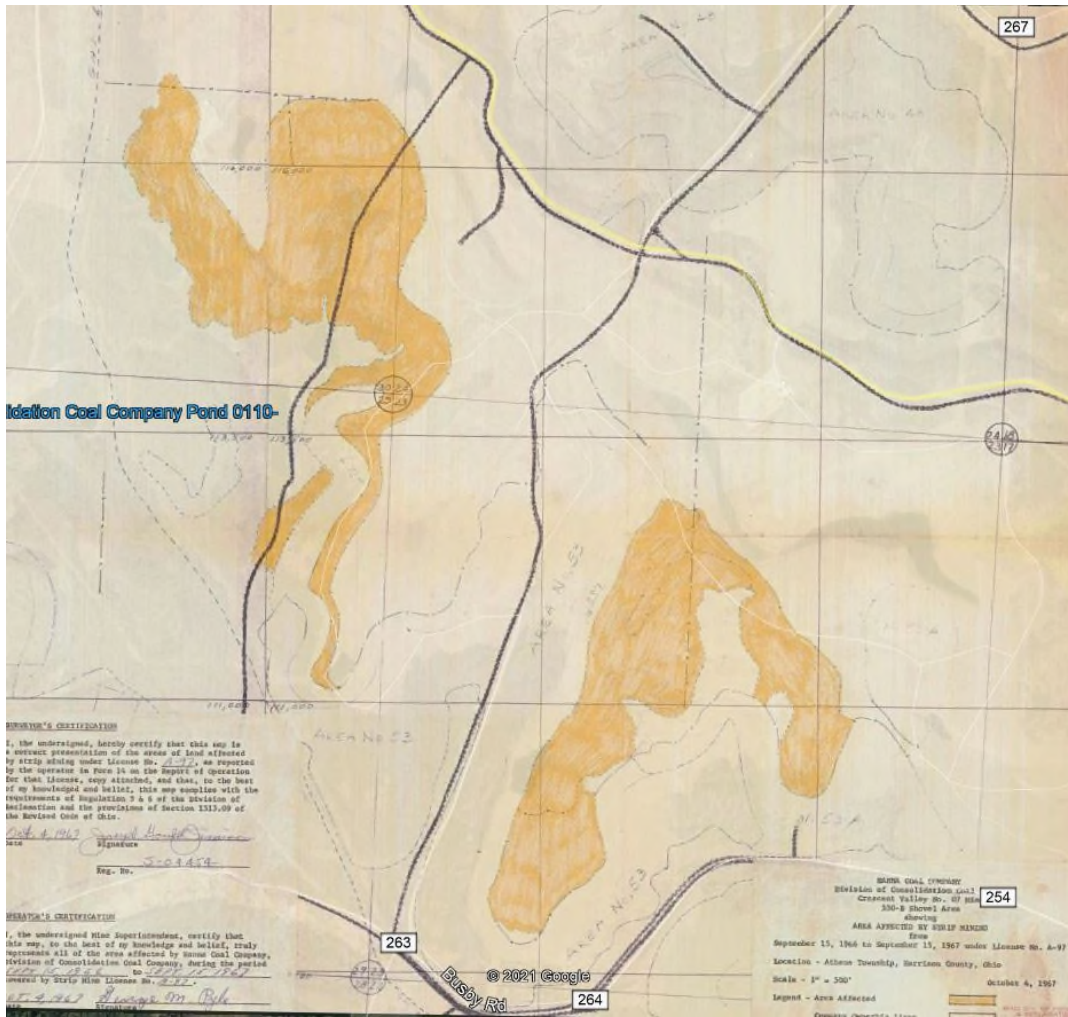


Figure A-3: Ohio DNR Mining Map A-0097, 1967



Figure A-4: Ohio DNR Mining Map A-1007-1, 1975

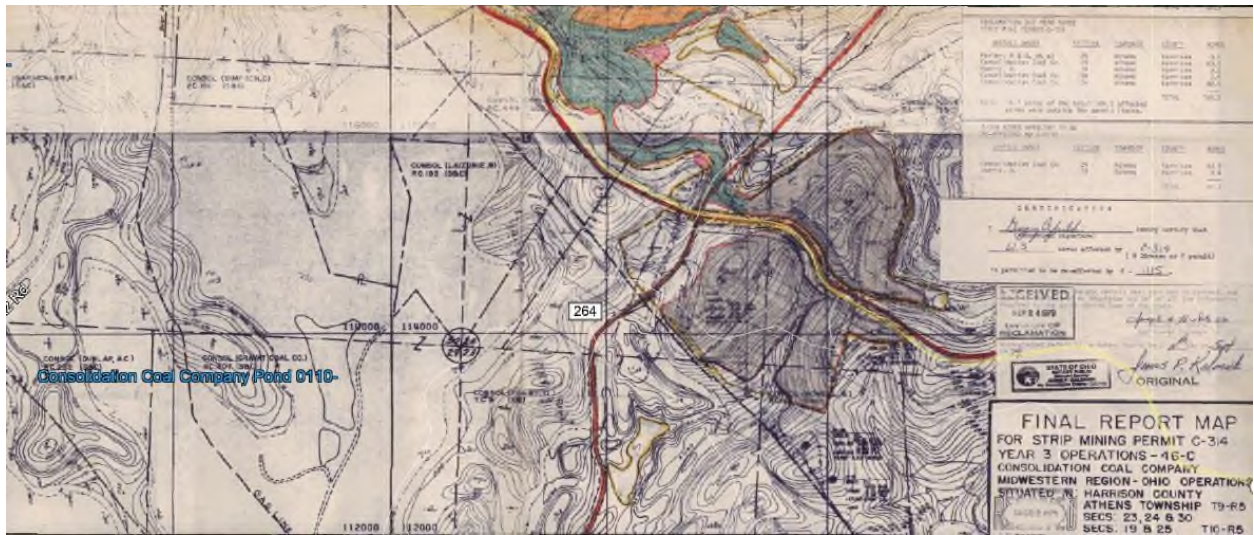


Figure A-5: Ohio DNR Mining Map C-314, 1979



Figure A-6: Ohio DNR Mining Map C-1126, 1990