

Empire Offshore Wind LLC

Empire Wind 1 Project

Article VII Application

Appendix F

Electric- and Magnetic-Field Assessment

June 2021



Exponent Engineering P.C.

*Electrical Engineering and Computer
Science Practice*

Empire Wind 1 Project

Electric- and Magnetic-Field Assessment



Empire Wind 1 Project

Electric- and Magnetic-Field Assessment

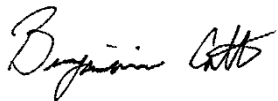
Prepared by:

Exponent Engineering P.C.
420 Lexington Avenue
Suite 1740
New York, NY 10170

June 2021

© Exponent, Inc.

Benjamin R.T. Cotts, Ph.D., P.E. (Licensed Electrical Engineer, New York, #103209) and Sonal K. Phan, Ph.D., P.E. (Licensed Electrical Engineer, California, #21821), employed by Exponent, performed calculations of the electric and magnetic fields associated with the operation of the proposed Project.



Benjamin Cotts, Ph.D., P.E.



Contents

	<u>Page</u>
List of Figures	iv
List of Tables	iv
Acronyms and Abbreviations	v
Limitations	vi
Executive Summary	vii
Introduction	1
Project Description	1
Electric and Magnetic Fields	4
Assessment Criteria	5
Cable Configuration and Magnetic-Field Calculation Methods	6
Submarine Export Cables	6
Onshore Interconnection Cables	7
Magnetic-Field Calculations	8
Magnetic-Field Results	10
Conclusions	11
References	12
Attachment A	Cable and Duct Bank Details
Attachment B	Calculated Magnetic-Field Levels
Attachment C	Graphical Profiles of Calculated Magnetic Fields
Attachment D	Input Data for Magnetic-Field Calculations
Attachment E	Output Tables of Magnetic-Field Calculations

List of Figures

	<u>Page</u>
Figure 1. Overview of the EW 1 Lease Area and preferred submarine export cable route.	2
Figure 2. Overview of the submarine export cable route where it approaches the onshore substation, and the onshore interconnection cable route extending from the onshore substation to the proposed POI in Gowanus.	3

List of Tables

Table 1. Current flow in the Project cables at WNC rating	8
---	---

Acronyms and Abbreviations

AC	Alternating current
EMF	Electric and magnetic fields
Exponent	Exponent Engineering P.C.
EW 1	Empire Wind 1
ft	Feet
Hz	Hertz
IEEE	Institute of Electrical and Electronics Engineers
km	Kilometer
kV	Kilovolt
kV/m	Kilovolt per meter
Lease Area	Designated Renewable Energy Lease Area OCS-A 0512
m	Meter
mG	Milligauss
mi	Mile
mm	Millimeter
nm	Nautical mile
NYPSC or Commission	New York Public Service Commission
OD	Outer diameter
POI	Points of interconnection
RMS	Root mean square
ROW	Right of way
WNC	Winter normal conductor
XLPE	Cross-linked polyethylene

Limitations

At the request of Empire Offshore Wind LLC (Empire), Exponent Engineering P.C. (Exponent) assessed the electric- and magnetic-field levels associated with the operation of the submarine export cables and onshore interconnection cables that will transport electricity generated by the Empire Wind 1 (EW 1) Project. This assessment is being submitted to the New York Public Service Commission for the portions of the EW 1 Project transmission system located within the State of New York (collectively the Project) pursuant to Article VII of the New York Public Service Law.

This report summarizes the analysis performed and presents the findings resulting from that work. In the analysis, we have relied on cable design geometry, usage, specifications, and various other types of information provided by Empire. We cannot verify the correctness of this input data and rely on Empire for the data's accuracy. Although Exponent has exercised usual and customary care in the conduct of this analysis, the responsibility for the design and operation of the Project remains fully with Empire. Empire has confirmed to Exponent that the data contained herein are not subject to Critical Energy Infrastructure Information restrictions.

The findings presented herein are made to a reasonable degree of engineering and scientific certainty. Exponent reserves the right to supplement this report and to expand or modify opinions based on review of additional material as it becomes available, through any additional work, or review of additional work performed by others.

The scope of services performed during this investigation may not adequately address the needs of other users of this report beyond the Article VII permitting of the Project for which it was prepared, and any re-use of this report or its findings, conclusions, or recommendations presented herein are at the sole risk of the user. The opinions and comments formulated during this assessment are based on observations and information available at the time of the investigation. No guarantee or warranty as to future life or performance of any reviewed condition is expressed or implied.

Executive Summary

Empire Offshore Wind LLC (Empire) proposes to construct and operate the Empire Wind 1 (EW 1) Project as one of two separate offshore wind projects to be located within the Bureau of Ocean Energy Management designated Renewable Energy Lease Area OCS-A 0512. The proposed transmission system for the EW 1 Project will connect the offshore wind farm to the point of interconnection, located in Brooklyn, New York, and will include 230-kilovolt (kV) export and 345-kV interconnection cables traversing a total of approximately 17.5 miles (15.2 nautical miles; 28.2 kilometers) within the State of New York. This assessment of electric and magnetic fields (EMF) is submitted to the New York Public Service Commission (NYPSC) for the portions of the EW 1 Project transmission system located within the State of New York (collectively the Project) pursuant to Article VII of the New York Public Service Law.

As part of the Article VII filing for the Project, Exponent Engineering P.C. (Exponent) modeled the 60-Hertz magnetic-field levels anticipated to be produced during operation of the underground transmission lines onshore and the submarine cables offshore that convey electricity generated by the Project at the maximum capacity limits of the cables corresponding to the loading of an overhead transmission line under a winter normal conductor rating. Calculations were performed for operation at current flows consistent with the 1990 NYPSC standards and using computer algorithms developed by the Bonneville Power Administration, an agency of the U.S. Department of Energy.

The calculated magnetic-field levels (both maximum and at the edge of the right-of-way) from the submarine export cables and the onshore interconnection cable are below 200 milligauss and thus comply with the magnetic-field guidelines of the NYPSC.

The Project will not be a direct source of electric fields above ground or at the seabed due to shielding of the electric field by the cable's construction and the ground, seabed or cable protection. Therefore, electric-field levels will be below the NYPSC's electric-field guidelines.

Note that this Executive Summary does not contain all of Exponent's technical evaluations, analyses and conclusions. Hence, the main body of this report is always the controlling document.

Introduction

Project Description

Empire Offshore Wind LLC (Empire) proposes to construct and operate the Empire Wind 1 (EW 1) Project as one of two separate offshore wind projects proposed by Empire to be located within the Bureau of Ocean Energy Management designated Renewable Energy Lease Area OCS-A 0512 (Lease Area).

The proposed transmission system for the EW 1 Project will connect the offshore wind farm to the point of interconnection (POI) and will include 230-kilovolt (kV) submarine export cables offshore and 345-kV interconnection cables onshore traversing a total of approximately 17.5 miles (mi) (15.2 nautical miles [nm], 28.2 kilometers [km]) within the State of New York. Electric transmission lines with a design capacity of 125 kV or more extending a distance of one mile (1.6 km) or more are subject to review and approval by the New York Public Service Commission (NYPSC or Commission) as major electric transmission lines. This assessment is being submitted to the Commission for the portions of the EW 1 Project transmission system located within the State of New York (collectively the Project) pursuant to Article VII of the New York Public Service Law.

The Project will interconnect to the New York State Transmission System operated by the New York Independent System Operator at the Gowanus 345-kV Substation POI. The Gowanus 345-kV Substation is owned by the Consolidated Edison Company of New York, Inc. The Project's onshore facilities, including the onshore cable route, onshore substation, and the POI, are located entirely within the borough of Brooklyn, Kings County, New York.

The offshore transmission lines were evaluated first, followed by an evaluation of the onshore transmission lines. An overview of the offshore portion of the Project is shown in Figure 1. The power generated by offshore wind turbines in the designated Lease Area is delivered to shore-based infrastructure over 230-kV export cables along the route, as depicted by the yellow line in the figure. The proposed termination of the export cables at Gowanus, Brooklyn, is shown in Figure 2.

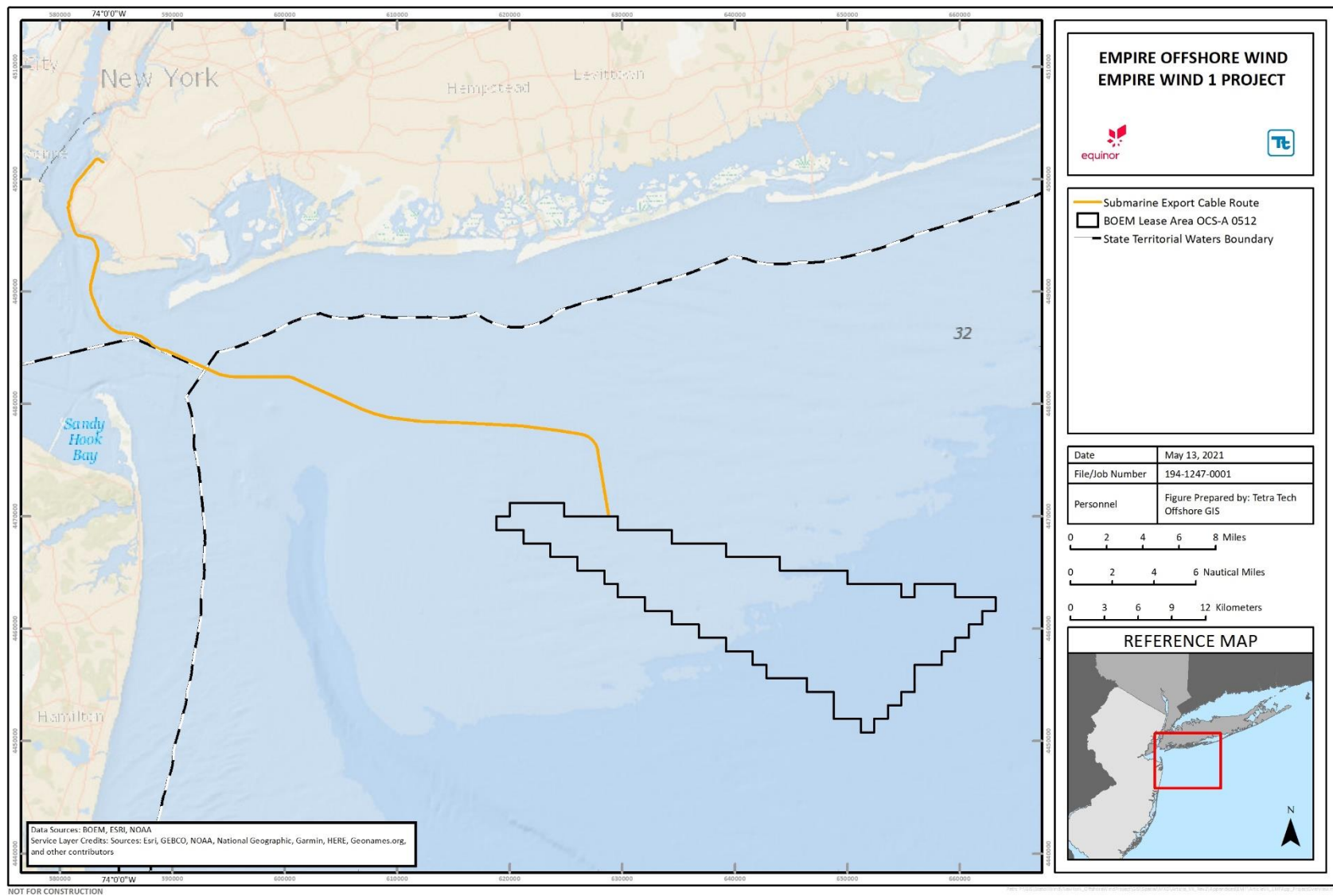


Figure 1. Overview of the EW 1 Lease Area and preferred submarine export cable route.



Figure 2. Overview of the submarine export cable route where it approaches the onshore substation, and the onshore interconnection cable route extending from the onshore substation to the proposed POI in Gowanus.

The Article VII components of the EW 1 Project include:

- Two three-conductor 230-kV alternating-current (AC) submarine export cables, operating as separate circuits, within an approximately 15.1-nm (27.9km) long submarine export cable corridor from the boundary of New York State waters located 3 nm (5.6 km) offshore to the cable landfall in Brooklyn, New York. The submarine export cables will connect directly to the onshore substation;
- At the onshore substation, the voltage of the electricity will be stepped up to 345 kV for connection to the electrical grid; and
- A 0.2-mi (0.3-km) long onshore interconnection cable route, including two 345-kV onshore interconnection cable circuits, each comprised of three single-conductor cables that will connect the onshore substation to the POI.

This report summarizes the calculated levels of AC magnetic fields for the onshore interconnection cables and submarine export cables.

Electric and Magnetic Fields

The flow of electric currents on the Project's onshore interconnection and submarine export cables will be sources of electric and magnetic fields (EMF). Like all wiring and equipment connected to the electrical system in North America, the EMF surrounding the cables will oscillate with a frequency of 60 Hertz (Hz).

The magnetic field results from the flow of electricity along the cables and the magnetic flux density is reported in units of milligauss (mG), where 1 Gauss = 1,000 mG. The magnetic field will be strongest at the surface of the cables and will decrease rapidly with distance from the cables.

While the voltages applied to conductors within these cables are a source of electric fields, the cable insulation, the outer grounded metallic sheathing, and the earth itself covering the cables will block that electric field from entering the environment around the cables. Therefore, electric-field values are not discussed further.

Assessment Criteria

While the federal government has not established standards for EMF produced by transmission infrastructure, New York State has established guidelines and limits for EMF that must be followed by utility companies seeking Certificates of Environmental Compatibility and Public Need. The NYPSC established guidelines in 1978 for electric fields generated by new transmission lines in Opinion No. 78-13. In 1990, the NYPSC established guidelines for magnetic-field levels for new transmission lines in their Interim Policy Statement on Magnetic Fields.

Magnetic Fields

The NYPSC's Interim Policy guideline states that magnetic fields created by Article VII transmission lines cannot exceed 200 mG at the edge of the right of way (ROW). Pursuant to the Interim Policy, the magnetic-field level is to be measured or calculated at 3.3 feet (ft) (1 meter [m]) above ground, with the transmission line operating at a current flow equal to the winter normal conductor (WNC) rating. The NYPSC established these limits so that EMF from new transmission lines would not exceed levels from existing transmission lines throughout New York; in other words, the limits maintain the *status quo*.

Electric Fields

The NYPSC also limits electric-field levels from overhead transmission lines to 1.6 kilovolts per meter (kV/m) at the ROW edge since the voltage applied to overhead conductors is a direct source of electric fields in the surrounding environment. The Project will not be a direct source of any above ground electric fields since the Project's cables will all be underwater or underground, and the associated electric fields will be blocked by the cable construction and ground.¹

¹ In the marine environment there are some fish species that have specialized sensors to detect very weak electric fields, which are induced by any AC magnetic field, so as part of a marine environmental assessment, induced electric fields in seawater may be calculated for comparison to reported thresholds for detection by these species. These induced electric-field levels would be approximately 1 million times below the NYPSC limit, so are not included in this assessment.

Cable Configuration and Magnetic-Field Calculation Methods

Exponent calculated the 60-Hz magnetic fields from the submarine export and onshore interconnection cables proposed to be installed as part of the Project. The proposed submarine export cable configurations and onshore interconnection cable configurations are described below and in Attachment A. The methods used to calculate magnetic fields and a description of the cable configurations are described below.

Submarine Export Cables

The specifications for the proposed submarine export cables are summarized in Attachment A, Table A-1. The two 230-kV submarine export cables will be installed in a double-circuit configuration (i.e., two parallel cables). This assessment was based on a horizontal distance of 33 ft (10 m) between cables.² Each submarine export cable contains three-phase conductors encased within cross linked polyethylene (XLPE). For the purposes of this assessment, it is assumed each submarine export cable will be installed at the center of a 30-ft (9.1-m) wide easement (i.e., a ROW). A cross-sectional drawing illustrating the components of a representative three-conductor XLPE cable is shown in Attachment A, Figure A-1.

The minimum target burial depth for the portion of the submarine export cable in New York State waters is 6 ft (1.8 m)³ beneath the seabed; however, a conservative depth of 4 ft (1.2 m) was used for the purposes of EMF calculations, which will result in higher calculated magnetic-field levels than if the cable were buried deeper. Where it is impossible to bury the cable, it will be laid on the surface of the seabed for short distances and covered with protective coverings. Protective coverings for surface-laid cable may include rock berms, rock bags, or concrete

² Deviations from this separation distance could occur due to site constraints and installation tolerances. The portion of the submarine export cables approaching landfall or onshore, or both, may be installed at a reduced separation distance if required due to site constraints. Additional information will be provided in Empire's Environmental Management and Construction Plan.

³ Empire used 4 ft (1.2 m) as a conservative minimum depth of submarine cable installation for the purposes of EMF calculations. The submarine export cables are anticipated to be installed to a target of 6 ft (1.8 m) depth or greater. Additionally, the submarine export cables proposed to be installed in federally maintained channels will be installed to a target burial depth of 15 ft (4.6 m) below authorized dredge depth.

mattresses. The minimum coverage depth for any of these surface-laid portions of the route is 3.3 ft (1.0 m), and it is expected that no more than 10 percent of the route will be surface-laid. The WNC rating of the 230-kV submarine export cables is 1,090 Amperes.

Onshore Interconnection Cables

After exiting the sea at landfall, the two submarine export cables will come onshore and pass through the shoreline bulkhead in conduits and continue underground to the onshore substation. At the onshore substation, the voltage of the 230-kV export cables will be stepped up to 345 kV before connecting to the onshore interconnection cables. The onshore interconnection cables will carry power from the onshore substation to the existing POI on double-circuit 345-kV underground transmission cables. Each circuit consists of three single-conductor XLPE phase conductors installed in duct banks or pipes and will be at the center of a 25-ft (7.6-m) cable corridor (i.e., a ROW) during operations. The WNC rating of the 345-kV onshore interconnection cables is 850 Amperes⁴ (see Table 1).

The dominant installation design for onshore interconnection cables is a trefoil arrangement for each set of three single-conductor cables corresponding to each of the two circuits, wherein the two trefoil bundles will be installed in side-by-side duct banks at a minimum target burial depth of 3 ft (0.9 m) to the top of the duct bank,⁵ and a minimum separation distance between duct banks of 0.0 ft (0.0 m). This represents the “Typical” configuration of the onshore interconnection cables, as it reflects the preferred and most likely installation scenario for the majority of the onshore interconnection cable route between the onshore substation and the POI. A cross-sectional drawing of the Typical configuration is shown in Figure A-3 in Attachment A.

A circuit spacing greater than the preferred value will only be used for short distances when installation conditions require greater separation such as at joint transition bays or splice vaults, at locations using trenchless crossing methods, or to accommodate existing utilities. For each of

⁴ A value of 850 Amperes is based on the 345-kV cable onshore.

⁵ For greater burial depth, magnetic-field levels would be lower.

these locations it is anticipated that the horizontal separation between the two circuits will be up to 10 ft (3 m).

Other alternative cable installation configurations, such as at road crossings or where deeper burial is not possible, also may be required for limited distances, as discussed in greater detail in Attachment A.

Table 1. Current flow in the Project cables at WNC rating

Project	Voltage (kV)	WNC Current (Amperes)
Submarine Export Cable	230	1,090
Onshore Interconnection Cable	345	850

Magnetic-Field Calculations

Exponent used the data provided by Empire—WNC ratings, phasing, and cable configurations—to calculate magnetic-field levels for the proposed Project. The calculations were performed using algorithms developed by the Bonneville Power Administration (BPA), an agency of the U.S. Department of Energy, for modeling AC transmission lines. BPA’s algorithms utilize simplifying assumptions about the conductors to yield conservative results. Chartier and Dickson (1990) and Perrin et al. (1991) have shown that BPA’s algorithms accurately predict magnetic-field levels from AC transmission lines.

The calculations of the magnetic field for the submarine and onshore cables assumed that all conductors are parallel to one another and infinite in length, the load on the phase conductors is balanced, there is no attenuation of magnetic fields from any surrounding material, there are no unbalanced currents flowing along the outer sheaths of the cables, and that the cables are carrying electrical currents equal to their WNC ratings.

All calculations were performed along a transect perpendicular to the transmission line centerlines and reported at a height of 3.3 ft (1 m) above ground. This is consistent with Institute of Electrical and Electronics Engineers (IEEE) Standards—C95.3.1-2010 and 0644-

2019 (IEEE, 2010, 2019). Magnetic-field values are reported as root-mean-square (rms) flux density in mG and were calculated as the magnitude of the field along the major axis of the ellipse as specified by NYPSC (1990).⁶

⁶ This is in contrast to IEEE Standard 644-2019 and C95.3.1-2010, which specify that fields are calculated as the rms flux density of the resultant of three orthogonal field vectors and the magnetic-field levels calculated in the offshore report submitted to the Bureau of Ocean Energy Management. The resultant values are equal to or larger than the major axis of the ellipse in all locations.

Magnetic-Field Results

The calculated magnetic-field levels from cable configurations proposed for the various sections of the Project route are discussed below. Table B-1 in Attachment B summarizes the calculated magnetic-field levels at various distances from the transmission line centerlines (i.e., from the midpoint between the centerlines of the two circuits). Attachment C includes graphic profiles of the calculated magnetic-field levels (Figure C-1 through Figure C-8). Attachment D summarizes the transmission line data provided by Empire that were used to model magnetic-field levels for the proposed Project. Tables detailing the calculated post-construction magnetic-field levels at 1-ft (0.3-m) increments across each cross-section to ± 250 ft (± 76 m) from the ROW centerline are provided in Attachment E.

The maximum post-construction magnetic-field level as well as magnetic-field levels at ± 15 ft (± 4.6 m) from the submarine export cable, and ± 12.5 ft (± 3.8 m) from the onshore interconnection cable centerline (i.e., the ROW edge) were calculated to be below the NYPSC standard of 200 mG for all modeled configurations. As listed in Table B-1, the maximum magnetic-field levels for all proposed cable configurations are 170 mG or less. The magnetic-field levels further decrease with increasing distance from the ROW centerline for all proposed cable configurations of the submarine export and onshore interconnection cables, so that at ± 15 ft (± 4.6 m) from the submarine export cable, and ± 12.5 ft (± 3.8 m) from the onshore interconnection cable centerline (i.e., the ROW edge) the magnetic-field level is 40 mG or less. Magnetic-field levels at 50 ft (15 m) from the center line of the cables (offshore or onshore) are 2.2 mG or less.

Conclusions

This report summarizes an evaluation of the EMF associated with representative configurations of the proposed submarine export and onshore interconnection cables that will carry electricity from EW 1 to the POI as part of the Project.

Magnetic Fields

Magnetic-field calculations were performed using methods accepted within the scientific and engineering community and that have been found to match well with measured values.

Calculations of the magnetic field at WNC ratings show that the magnetic field at ± 15 ft (± 4.6 m) from the submarine export cable and ± 12.5 ft (± 3.8 m) from the onshore interconnection cable centerline (i.e., the ROW edge) at 3 ft (1 m) above ground is below 200 mG for all evaluated configurations of the Project. Thus, calculations of the magnetic field performed in accordance with the NYPSC's magnetic-field standard demonstrate compliance of the Project with the NYPSC limit.

Electric Fields

The NYPSC also requires compliance with a not-to-exceed electric-field limit of 1.6 kV/m at the ROW edge of new transmission lines. Since the electric field from the submarine and underground transmission cables is blocked by the cable construction and ground, the Project will not be a direct source of any electric field, and any electric field induced by the magnetic field will be *de minimis* and below the NYPSC limit.

References

Bonneville Power Administration (BPA). Corona and Field Effects Computer Program. Bonneville Power Administration, 1991.

Chartier VL and Dickson LD. Results of Magnetic Field Measurements Conducted on Ross-Lexington 230-kV Line. Report No. ELE-90-98. Bonneville Power Administration, 1990.

Institute of Electrical and Electronics Engineers (IEEE). Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines (ANSI/IEEE Std. 644-2019). New York: IEEE, 2019.

Institute of Electrical and Electronics Engineers (IEEE). IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic fields with respect to Human Exposure to Such Fields, 0 Hz to 100 kHz. New York: IEEE. IEEE Std. C95.3.1-2010.

New York Public Service Commission (NYPSC). Opinion No. 78-13. Cases 26529 and 26559, Issued June 19, 1978.

New York Public Service Commission (NYPSC). Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities. Cases 26529 and 26559 Proceeding on Motion of the Commission. Issued and Effective: September 11, 1990.

Perrin N, Aggarwal RP, Bracken TD, Rankin RF. Survey of Magnetic Fields near BPA 230-kV and 500-kV Transmission Lines, 1991.

Attachment A

Cable Configurations and Duct Bank Cross-Sections

Table A-1. Summary of assumed submarine export cable parameters

Installation Type	Buried ^{a, b}
Description	Submarine Export Cable, 230-kV double circuit
Cable Ampacity Rating (i.e., WNC Rating)	1090 Amperes
Cable Type (See Figure A-1) Nominal Outer Diameter (OD)	Three-conductor XLPE, 300 millimeter (mm) OD
Conductor	3 × 2000 mm ²
Distance Between Conductor Centers Within Cable	102 mm
Minimum Horizontal Distance Between Cables	33 ft (10 m)
Assumed Easement Width (i.e., ROW-width)	±15 ft (±4.6 m)
Modeled Burial Depth (to Top of Cable)	4 ft (1.2 m)

- a Empire used 4 ft (1.2 m) as a conservative minimum depth of submarine cable installation for the purposes of EMF calculations. The submarine export cables are anticipated to be installed to a target 6-ft (1.8-m) depth or greater. The portion of the submarine export cable route proposed to be installed in federally maintained channels will be installed to a minimum target burial depth of 15 ft (4.6 m) below the authorized dredge depth. Calculated magnetic-field levels will be lower for burial depths greater than the 4-ft (1.2-m) burial depth reported herein.
- b Surface-laid cables will be covered with rock berm or other protective covering to a minimum burial depth of 3.3 ft (1.0 m).

Table A-2. Summary of assumed onshore interconnection cable parameters

Installation Configuration	Typical	Road Crossing	Flat
Description	Interconnection Cable, 345-kV double circuit		
Cable Ampacity Rating (i.e., WNC Rating)	850 Amperes		
Cable Type (See Figure A-2) Nominal OD	Single-conductor XLPE, 5.2-inch OD (132 mm)		
Conductor	2.5-inches (63.4 mm)		
Distance between Duct Banks	0 to 10 ft ^a	10 to 20 ft ^b	0 to 10 ft ^a
Permanent Cable Corridor (i.e., ROW-width)	±12.5 ft (±3.8 m)		
Minimum Target Burial Depth (to Top of Duct Bank)	3 ft (0.9 m)		

- a Edge-to-edge distance between duct banks.
- b Center-to-center distance between circuit trefoil bundles.

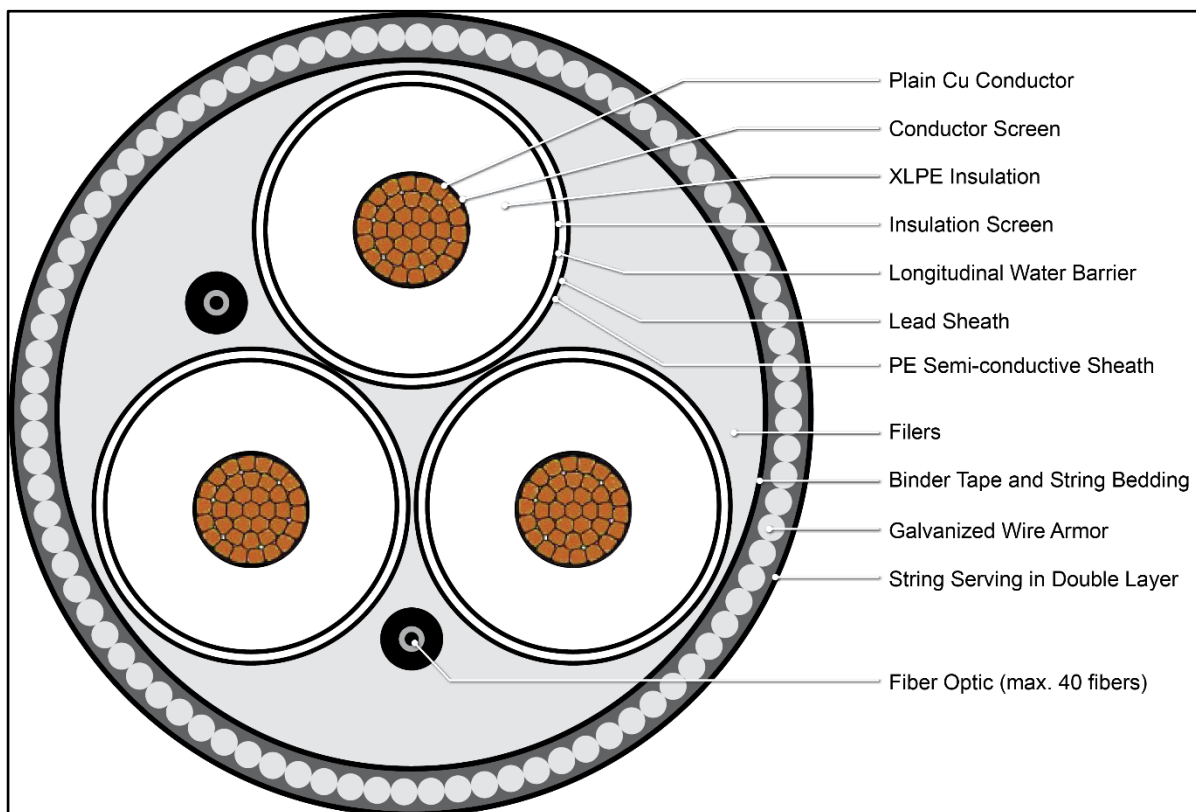


Figure A-1. Representative cross-section of a three-conductor submarine export cable.

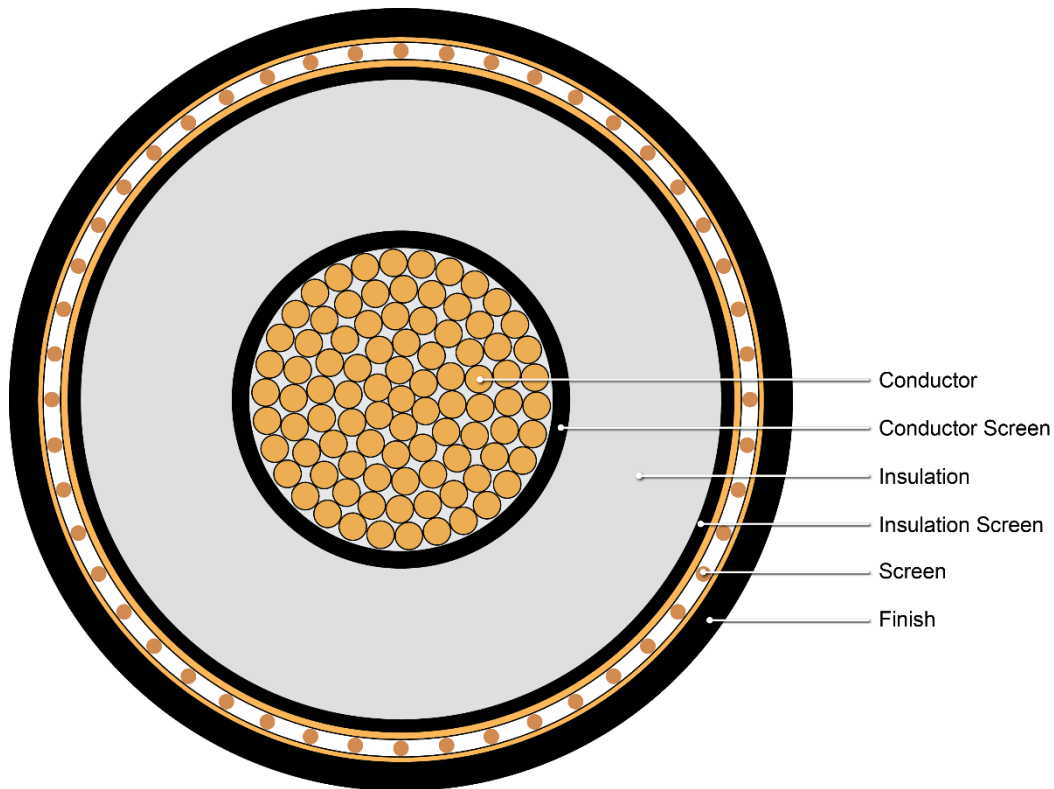


Figure A-2. Representative cross-section of a three-conductor submarine export cable.

Figure A-3 shows a cross-section of the underground duct banks with cables in the trefoil configuration, representative of a Typical onshore interconnection cable installation. Short cable segments under a road may be in the Road Crossing configuration. In the Road Crossing configuration, the cables will be installed in a trefoil configuration inside larger direct buried conduits or pipes, rather than in duct banks (Figure A-4). The minimum target burial depth to the top of the trefoil-containing pipes is 3 ft (0.9 m), and the range of possible separation distances between circuit centers at some locations beyond that of the Typical configuration is 10 to 20 ft (3 to 6 m). Alternatively, the cables may be installed in duct banks with a Flat configuration (Figure A-5) for short distances when the Typical configuration is not possible. The minimum separation distance between the Project's onshore cable circuits in the Flat configuration is 0 to 10 ft (0 to 3 m).

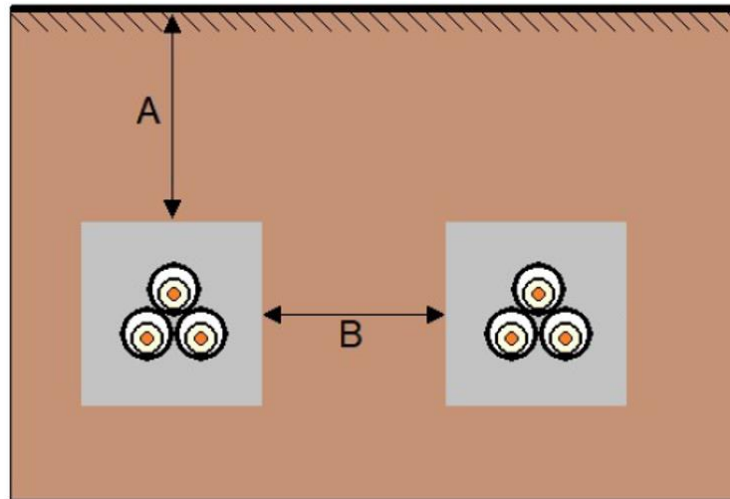


Figure A-3. Representative cross-section of the Typical configuration of the onshore interconnection cable duct bank. "A" is the minimum target burial depth and "B" is the distance between duct banks in Table A-2.

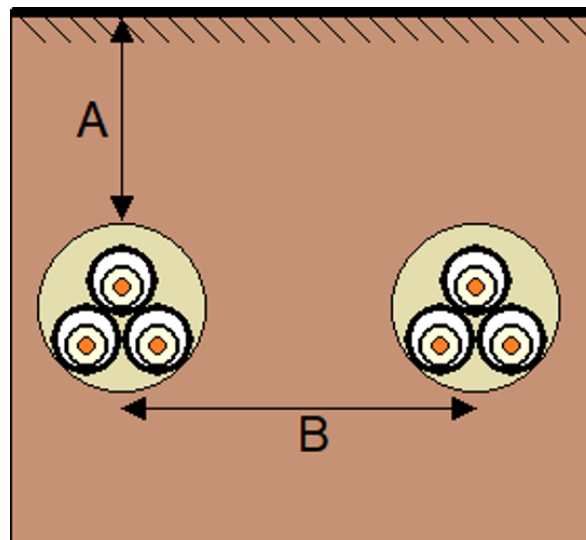


Figure A-4. Representative cross-section of the Road Crossing configuration of the onshore interconnection conductors within each cable conduit. "A" is the minimum target burial depth and "B" is the distance between duct banks in Table A-2.

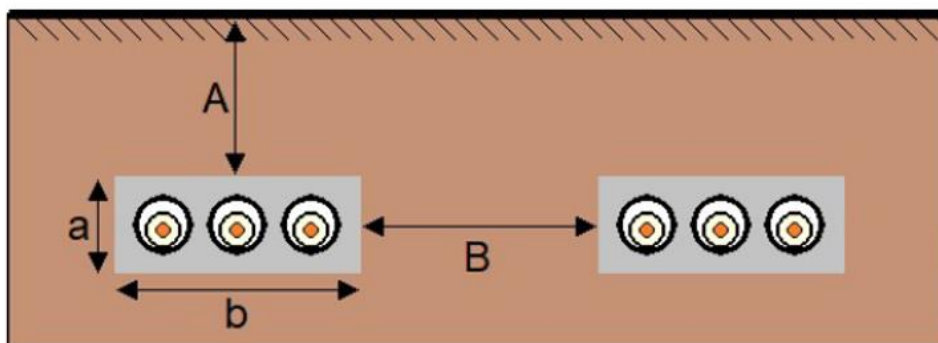


Figure A-5. Representative cross-section of the onshore interconnection cable duct bank in the Flat configuration. “A” is the minimum target burial depth; “B” is the distance between duct banks in Table A-2; “a” is the height of the duct bank; and “b” is the width of the duct bank.

Attachment B

Calculated Magnetic Fields

Table B-1. Calculated magnetic-field levels (mG)^a at 3.3 ft (1 m) above ground (or seabed) for WNC rating.

Cable Type	Submarine Cable Configuration	Distance from the Center of the Submarine Cables ^b								
		-100 ft (-30 m)	-50 ft (-15 m)	-ROW -31 ft (-9.6 m) ^d	-15 ft (-4.6 m)	Max	+15 ft (+4.6 m)	+ROW +31 ft (+9.6 m) ^d	+50 ft (+15 m)	+100 ft (+30 m)
230-kV Submarine Export Cable	Buried (4 ft [1.2m]) ^c	0.4	2.2	8.1	33	35	33	8.1	2.2	0.4
	Surface Laid (3.3 ft [1m]) ^c	0.4	2.2	8.5	40	42	40	8.5	2.2	0.4
Cable Type	Interconnection Cable Configuration	Distance from the Center of the Duct Banks ^b								
		-100 ft (-30 m)	-50 ft (-15 m)	-30 ft (-9.1 m)	-ROW -12.5 ft (-3.8 m) ^f	Max	+ROW +12.5 ft (+3.8 m) ^f	+30 ft (+9.1 m)	+50 ft (+15 m)	+100 ft (+30 m)
345-kV Onshore Interconnection Cable ^e	Typical	0.5	1.9	5.0	21	42	21	5.0	1.9	0.5
	Road Crossing	0.5	2.0	5.7	33	79	33	5.7	2.0	0.5
	Flat	0.1	0.5	2.4	24	170	24	2.4	0.5	0.1

- a At each location along a transect perpendicular to the transmission centerline, magnetic-field levels were calculated as the rms flux density of the maximum field ellipse as specified by NYPSC policy (NYPSC, 1990).
- b Horizontal distance is measured from the midpoint between the two circuits.
- c Burial depth represents the minimum distance between the seabed (or top surface of protective mattress) and OD of the cable. The reference point 3.3 ft (1 m) above ground at which field levels are evaluated for both the Buried and Surface Laid configurations is thus added to the burial depth to obtain the distance between the reference point and the top surface of the cable jacket.
- d The two export cables are modeled at a conservative minimum separation distance of 33 ft (10 m) from one another. The assumed easement (i.e., ROW) is ± 15 ft (± 4.6 m) from the nearest cable, so the magnetic-field levels are reported at the effective outer ROW edge of approximately ± 31 ft (± 9.6 m) from the centerline of the two export cables.
- e Calculated field values correspond to models with minimum duct bank/circuit spacing.
- f The onshore interconnection cable permanent cable corridor (i.e. ROW) is ± 12.5 ft (± 3.8 m) for the centerline of the duct banks.

Attachment C

Graphical Profiles of Calculated Magnetic Fields

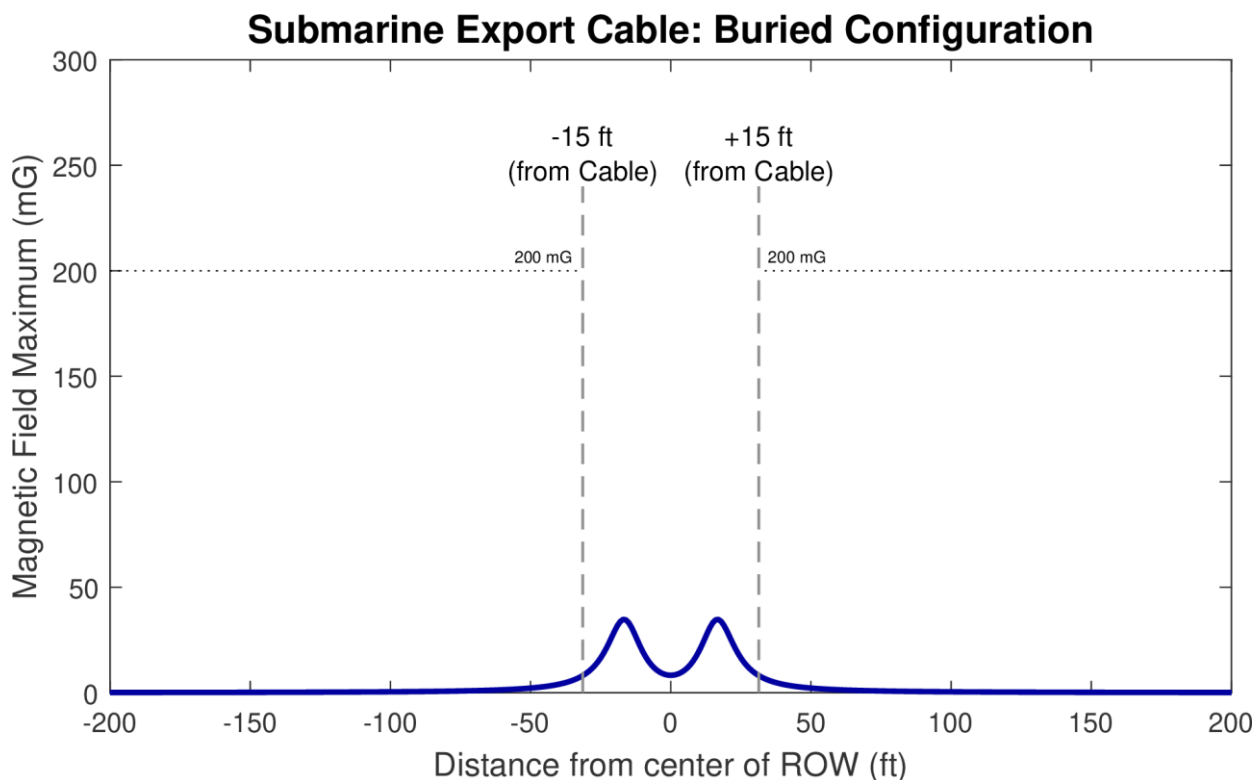


Figure C-1. Calculated magnetic-field levels in seawater 3.3 ft (1 m) above the seabed over the buried submarine export cable at WNC rating.

The two export cables are modeled at a conservative minimum separation distance of 33 ft (10 m) from one another. The assumed easement (i.e., ROW) is ± 15 ft (± 4.6 m) from the nearest cable, so the magnetic-field levels are reported at the effective outer ROW edge of approximately ± 31 ft (± 9.6 m) from the centerline of the two export cables.

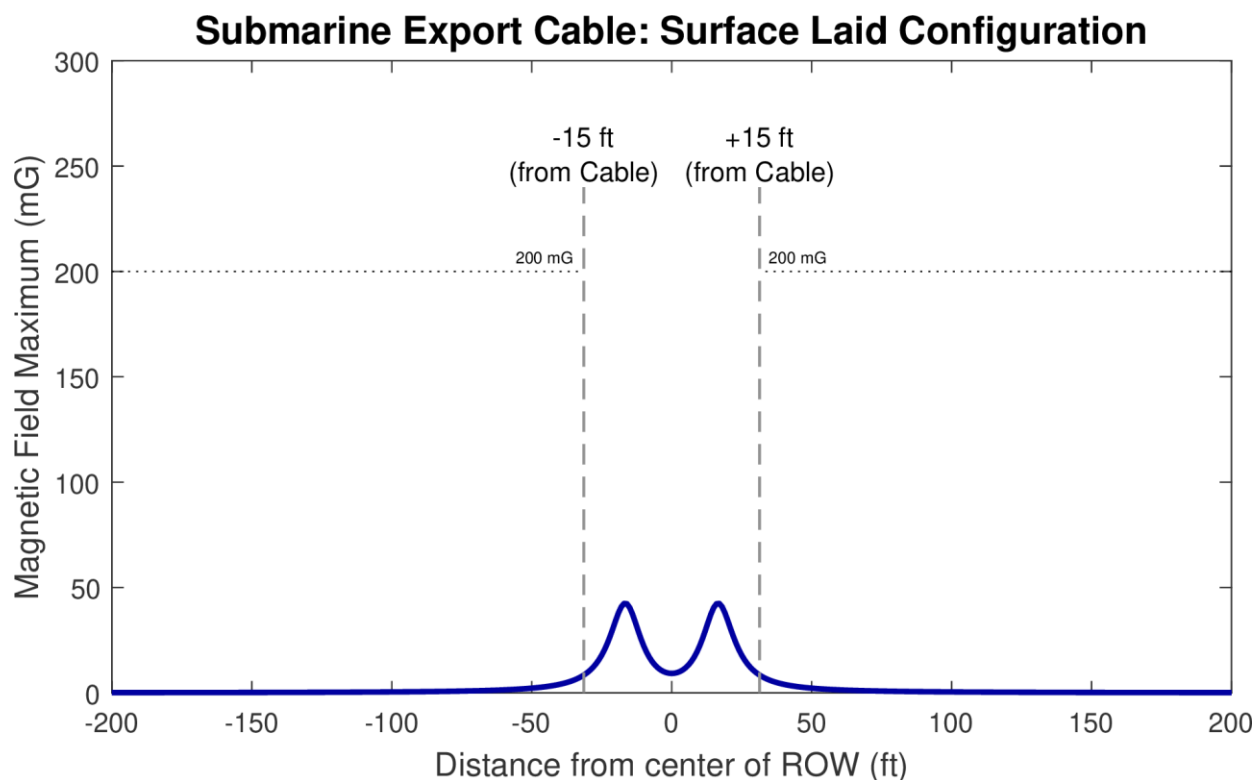


Figure C-2. Calculated magnetic-field levels in seawater 3.3 ft (1 m) above the surface-laid covering of the export cable at WNC rating.

The two export cables are modeled at a conservative minimum separation distance of 33 ft (10 m) from one another. The assumed easement (i.e., ROW) is ± 15 ft (± 4.6 m) from the nearest cable, so the magnetic-field levels are reported at the effective outer ROW edge of approximately ± 31 ft (± 9.6 m) from the centerline of the two export cables.

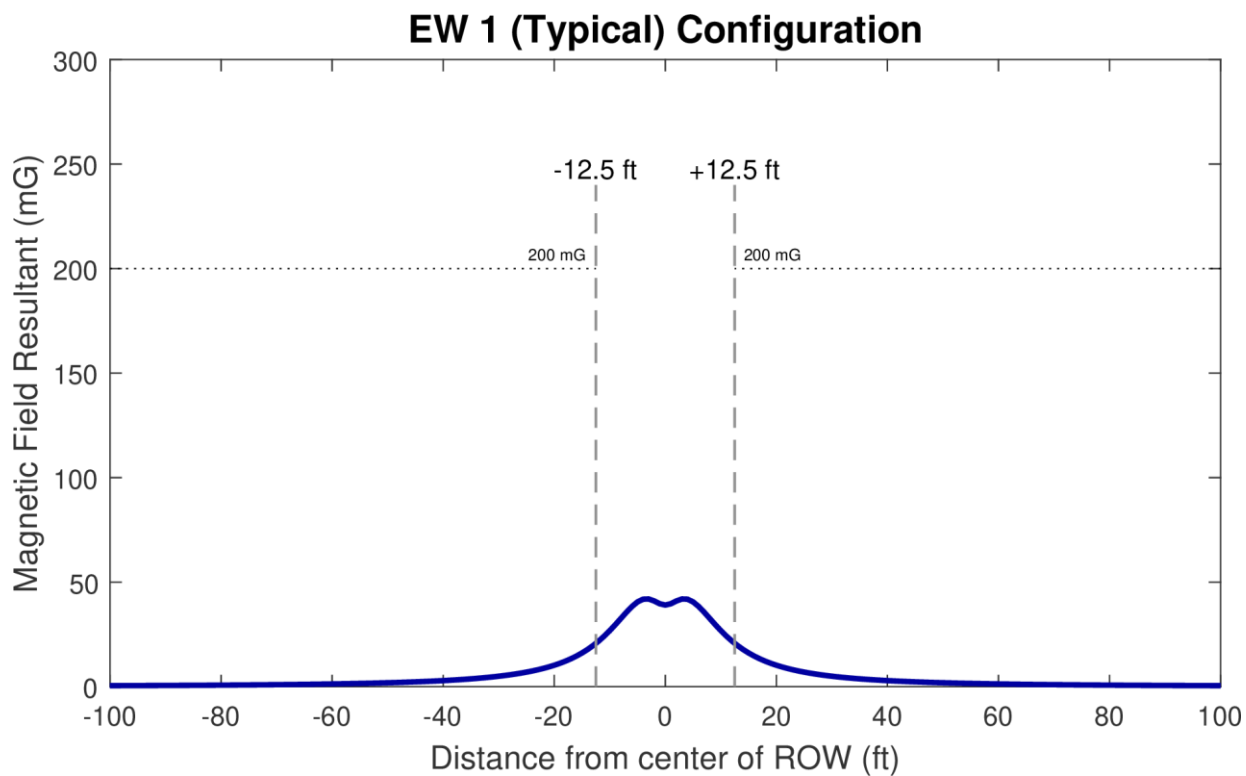


Figure C-3. Calculated magnetic-field levels at 3.3 ft (1 m) above ground for the underground onshore interconnection cable in the Typical configuration at WNC rating at minimum (0 ft [0 m]) spacing between adjacent duct banks.

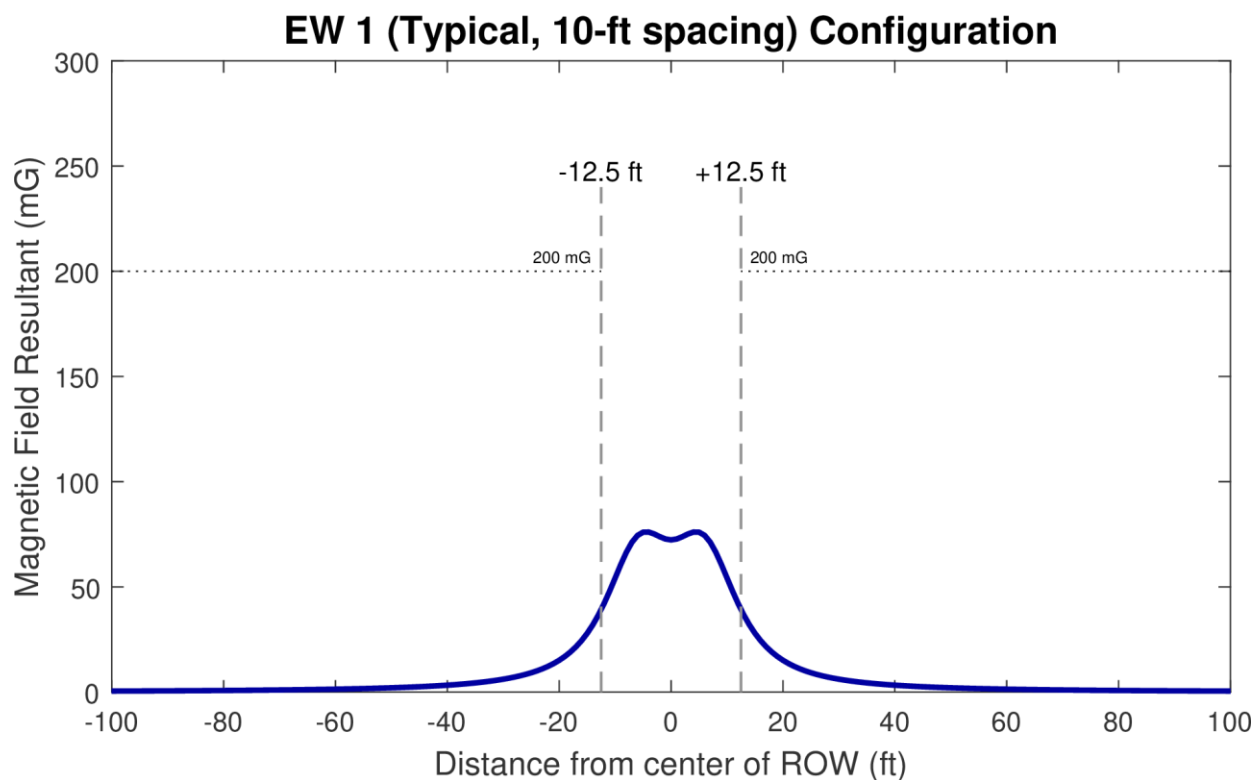


Figure C-4. Calculated magnetic-field levels at 3.3 ft (1 m) above ground over the underground onshore interconnection cable in the Typical configuration for WNC rating at maximum (10 ft [3 m]) spacing between adjacent duct banks.

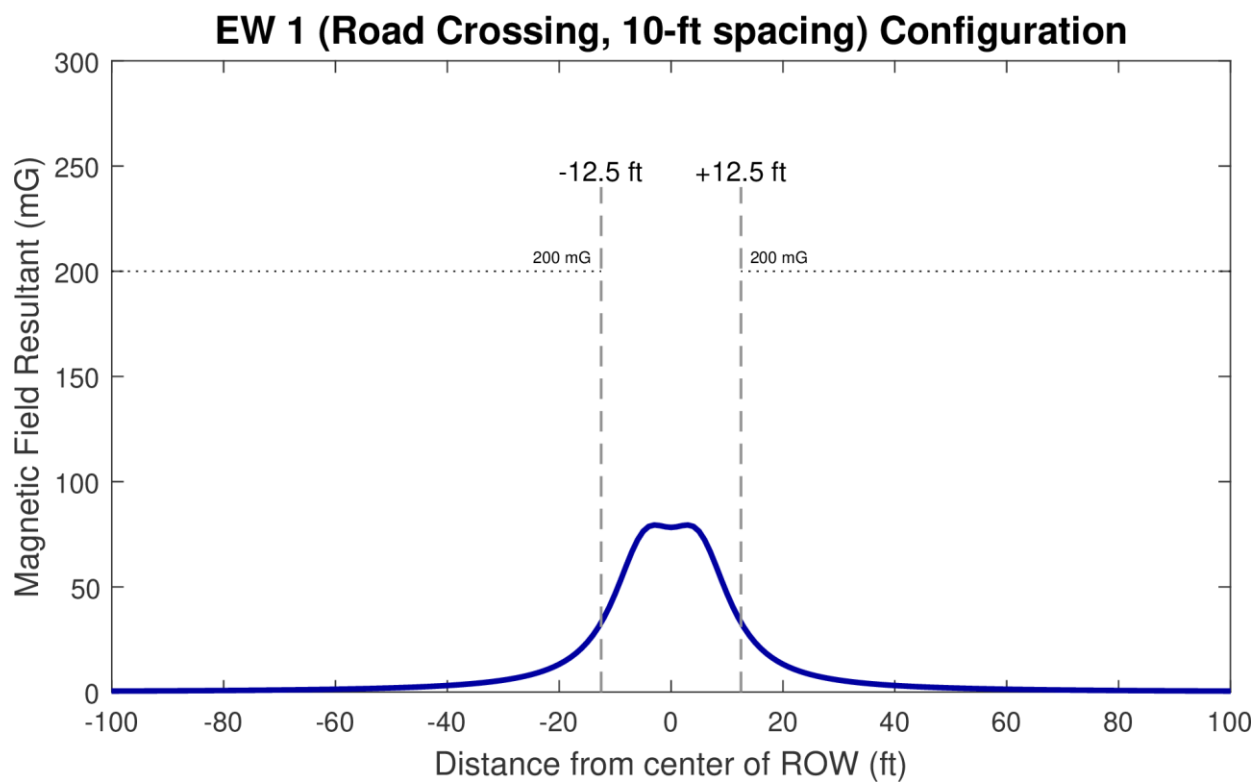


Figure C-5. Calculated magnetic-field levels at 3.3 ft (1 m) above ground over the underground onshore interconnection cable in the Road Crossing configuration for WNC rating at minimum (10 ft [3 m]) spacing between adjacent duct banks.

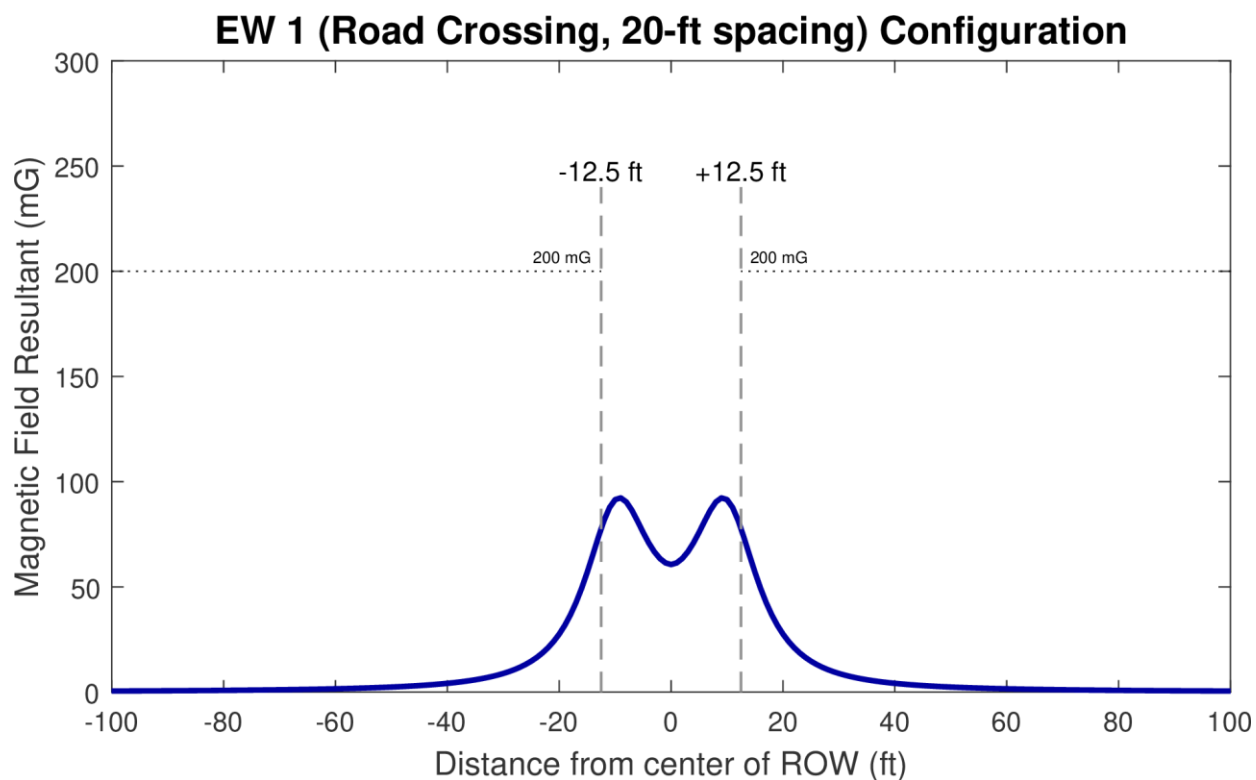


Figure C-6. Calculated magnetic-field levels at 3.3 ft (1 m) above ground over the underground onshore interconnection cable in the Road Crossing configuration for WNC rating at maximum (20 ft [6 m]) spacing between adjacent duct banks.

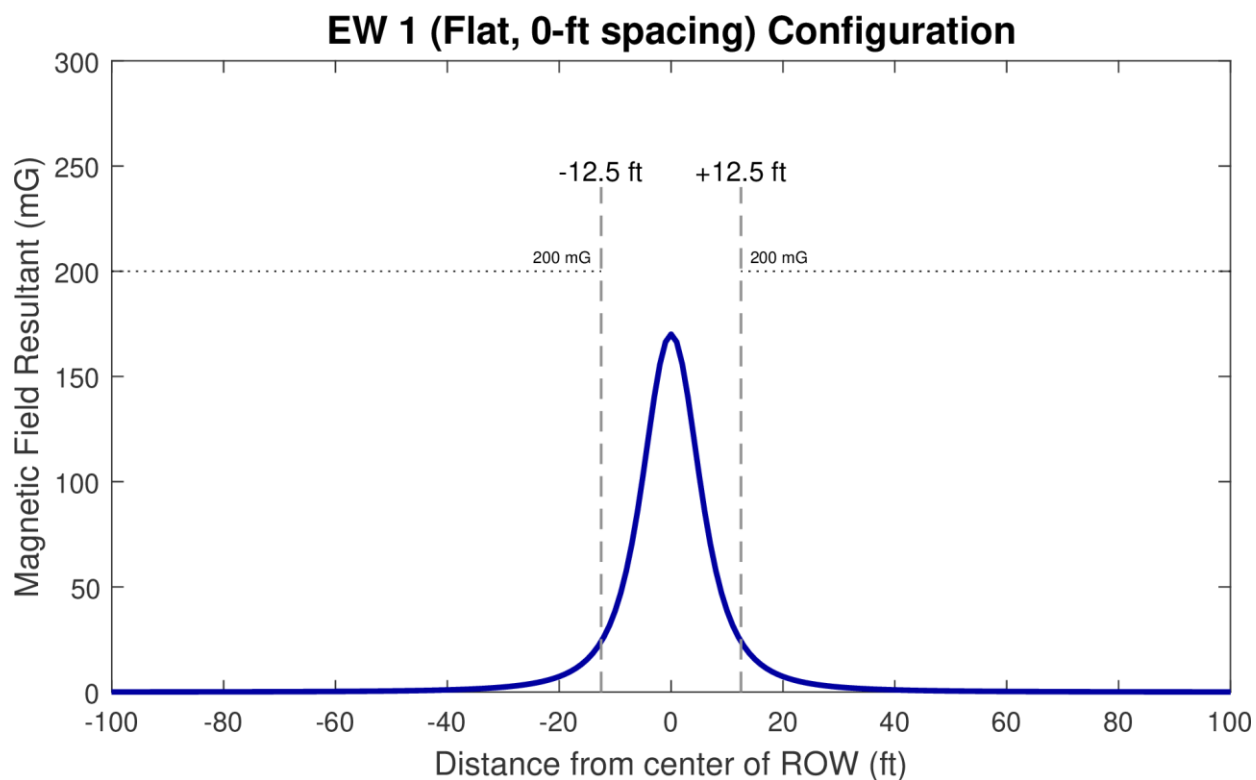


Figure C-7. Calculated magnetic-field levels at 3.3 ft (1 m) above ground over the underground onshore interconnection cable in the Flat configuration for WNC rating at minimum (0 ft [0 m]) spacing between adjacent duct banks.

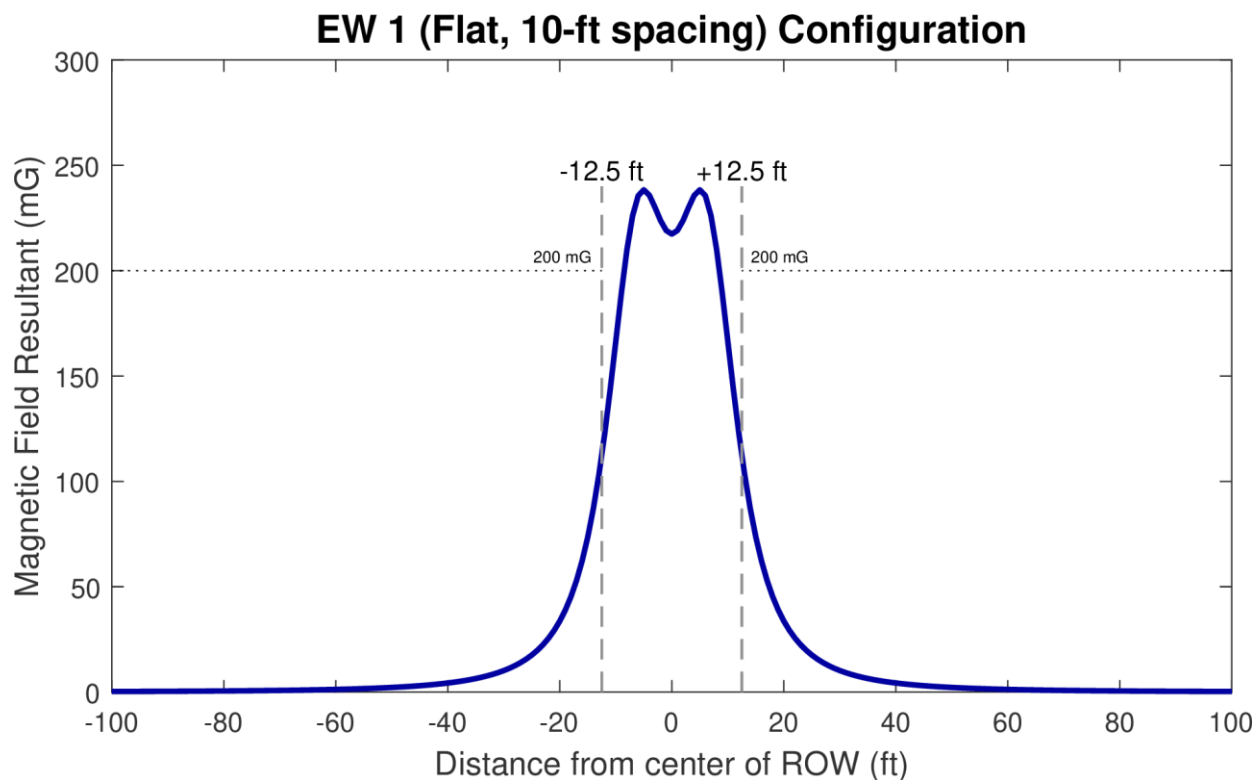


Figure C-8. Calculated magnetic-field levels at 3.3 ft (1 m) above ground over the underground onshore interconnection cable in the Flat configuration for WNC rating at maximum (10 ft [3 m]) spacing between adjacent duct banks.

Attachment D

Input Data for Magnetic-Field Calculations

Table D-1. Input data for magnetic field calculations: Submarine Export Cable (Buried)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-16.40	-4.17	1	4.016	0	132.791	0	1090	230	0
2	-16.57	-4.46	1	4.016	0	132.791	240	1090	230	240
3	-16.24	-4.46	1	4.016	0	132.791	120	1090	230	120
4	16.40	-4.17	1	4.016	0	132.791	0	1090	230	0
5	16.24	-4.46	1	4.016	0	132.791	240	1090	230	240
6	16.57	-4.46	1	4.016	0	132.791	120	1090	230	120

Table D-2. Input data for magnetic field calculations: Submarine Export Cable (Surface Laid)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-16.40	-3.47	1	4.016	0	132.791	0	1090	230	0
2	-16.57	-3.76	1	4.016	0	132.791	240	1090	230	240
3	-16.24	-3.76	1	4.016	0	132.791	120	1090	230	120
4	16.40	-3.47	1	4.016	0	132.791	0	1090	230	0
5	16.24	-3.76	1	4.016	0	132.791	240	1090	230	240
6	16.57	-3.76	1	4.016	0	132.791	120	1090	230	120

Table D-3. Input data for magnetic field calculations: EW 1 (Typical)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-1.29	-4.05	1	2.496	0	199.186	0	850	345	0
2	-1.79	-4.91	1	2.496	0	199.186	240	850	345	240
3	-0.79	-4.91	1	2.496	0	199.186	120	850	345	120
4	1.79	-4.91	1	2.496	0	199.186	0	850	345	0
5	1.29	-4.05	1	2.496	0	199.186	240	850	345	240
6	0.79	-4.91	1	2.496	0	199.186	120	850	345	120

Table D-4. Input data for magnetic field calculations: EW 1 (Typical, 10-ft spacing)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-6.29	-4.05	1	2.496	0	199.186	0	850	345	0
2	-6.79	-4.91	1	2.496	0	199.186	240	850	345	240
3	-5.79	-4.91	1	2.496	0	199.186	120	850	345	120
4	6.79	-4.91	1	2.496	0	199.186	0	850	345	0
5	6.29	-4.05	1	2.496	0	199.186	240	850	345	240
6	5.79	-4.91	1	2.496	0	199.186	120	850	345	120

Table D-5. Input data for magnetic field calculations: EW 1 (Road Crossing, 10-ft spacing)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-5.00	-3.63	1	2.496	0	199.186	0	850	345	0
2	-5.50	-4.49	1	2.496	0	199.186	240	850	345	240
3	-4.50	-4.49	1	2.496	0	199.186	120	850	345	120
4	5.50	-4.49	1	2.496	0	199.186	0	850	345	0
5	5.00	-3.63	1	2.496	0	199.186	240	850	345	240
6	4.50	-4.49	1	2.496	0	199.186	120	850	345	120

Table D-6. Input data for magnetic field calculations: EW 1 (Road Crossing, 20-ft spacing)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-10.00	-3.63	1	2.496	0	199.186	0	850	345	0
2	-10.50	-4.49	1	2.496	0	199.186	240	850	345	240
3	-9.50	-4.49	1	2.496	0	199.186	120	850	345	120
4	10.50	-4.49	1	2.496	0	199.186	0	850	345	0
5	10.00	-3.63	1	2.496	0	199.186	240	850	345	240
6	9.50	-4.49	1	2.496	0	199.186	120	850	345	120

Table D-7. Input data for magnetic field calculations: EW 1 (Flat, 0-ft spacing)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-2.73	-3.77	1	2.496	0	199.186	0	850	345	0
2	-1.67	-3.77	1	2.496	0	199.186	240	850	345	240
3	-0.60	-3.77	1	2.496	0	199.186	120	850	345	120
4	2.73	-3.77	1	2.496	0	199.186	0	850	345	0
5	1.67	-3.77	1	2.496	0	199.186	240	850	345	240
6	0.60	-3.77	1	2.496	0	199.186	120	850	345	120

Table D-8. Input data for magnetic field calculations: EW 1 (Flat, 10-ft spacing)

Bundle	x-feet	y-feet	n cond	cond dia (inches)	Spacing (inches)	l-n voltage (kV)	V Phasing	Current (A)	Ph-Ph Voltage	I Phasing
1	-7.73	-3.77	1	2.496	0	199.186	0	850	345	0
2	-6.67	-3.77	1	2.496	0	199.186	240	850	345	240
3	-5.60	-3.77	1	2.496	0	199.186	120	850	345	120
4	7.73	-3.77	1	2.496	0	199.186	0	850	345	0
5	6.67	-3.77	1	2.496	0	199.186	240	850	345	240
6	5.60	-3.77	1	2.496	0	199.186	120	850	345	120

Attachment E

Output Tables of Magnetic Field Calculations

Table E-1. Calculated magnetic field levels for Submarine Export Cable: Buried and Submarine Export Cable: Surface Laid

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-250	<0.1	<0.1
-249	<0.1	<0.1
-248	<0.1	<0.1
-247	<0.1	<0.1
-246	<0.1	<0.1
-245	<0.1	<0.1
-244	<0.1	<0.1
-243	<0.1	<0.1
-242	<0.1	<0.1
-241	<0.1	<0.1
-240	<0.1	<0.1
-239	<0.1	<0.1
-238	<0.1	<0.1
-237	<0.1	<0.1
-236	<0.1	<0.1
-235	<0.1	<0.1
-234	<0.1	<0.1
-233	<0.1	<0.1
-232	<0.1	<0.1
-231	<0.1	<0.1
-230	<0.1	<0.1
-229	<0.1	<0.1
-228	<0.1	<0.1
-227	<0.1	<0.1
-226	<0.1	<0.1
-225	<0.1	<0.1
-224	<0.1	<0.1
-223	<0.1	<0.1
-222	<0.1	<0.1
-221	<0.1	<0.1
-220	<0.1	<0.1
-219	<0.1	<0.1
-218	<0.1	<0.1
-217	<0.1	<0.1
-216	<0.1	<0.1
-215	<0.1	<0.1
-214	<0.1	<0.1
-213	<0.1	<0.1
-212	<0.1	<0.1
-211	<0.1	<0.1
-210	<0.1	<0.1
-209	<0.1	<0.1
-208	<0.1	<0.1

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-207	<0.1	<0.1
-206	<0.1	<0.1
-205	0.1	0.1
-204	0.1	0.1
-203	0.1	0.1
-202	0.1	0.1
-201	0.1	0.1
-200	0.1	0.1
-199	0.1	0.1
-198	0.1	0.1
-197	0.1	0.1
-196	0.1	0.1
-195	0.1	0.1
-194	0.1	0.1
-193	0.1	0.1
-192	0.1	0.1
-191	0.1	0.1
-190	0.1	0.1
-189	0.1	0.1
-188	0.1	0.1
-187	0.1	0.1
-186	0.1	0.1
-185	0.1	0.1
-184	0.1	0.1
-183	0.1	0.1
-182	0.1	0.1
-181	0.1	0.1
-180	0.1	0.1
-179	0.1	0.1
-178	0.1	0.1
-177	0.1	0.1
-176	0.1	0.1
-175	0.1	0.1
-174	0.1	0.1
-173	0.1	0.1
-172	0.1	0.1
-171	0.1	0.1
-170	0.1	0.1
-169	0.1	0.1
-168	0.2	0.2
-167	0.2	0.2
-166	0.2	0.2
-165	0.2	0.2
-164	0.2	0.2
-163	0.2	0.2

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-162	0.2	0.2
-161	0.2	0.2
-160	0.2	0.2
-159	0.2	0.2
-158	0.2	0.2
-157	0.2	0.2
-156	0.2	0.2
-155	0.2	0.2
-154	0.2	0.2
-153	0.2	0.2
-152	0.2	0.2
-151	0.2	0.2
-150	0.2	0.2
-149	0.2	0.2
-148	0.2	0.2
-147	0.2	0.2
-146	0.2	0.2
-145	0.2	0.2
-144	0.2	0.2
-143	0.2	0.2
-142	0.2	0.2
-141	0.2	0.2
-140	0.2	0.2
-139	0.2	0.2
-138	0.2	0.2
-137	0.2	0.2
-136	0.2	0.2
-135	0.2	0.2
-134	0.2	0.2
-133	0.2	0.2
-132	0.2	0.2
-131	0.3	0.3
-130	0.3	0.3
-129	0.3	0.3
-128	0.3	0.3
-127	0.3	0.3
-126	0.3	0.3
-125	0.3	0.3
-124	0.3	0.3
-123	0.3	0.3
-122	0.3	0.3
-121	0.3	0.3
-120	0.3	0.3
-119	0.3	0.3
-118	0.3	0.3

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-117	0.3	0.3
-116	0.3	0.3
-115	0.3	0.3
-114	0.3	0.3
-113	0.3	0.3
-112	0.4	0.4
-111	0.4	0.4
-110	0.4	0.4
-109	0.4	0.4
-108	0.4	0.4
-107	0.4	0.4
-106	0.4	0.4
-105	0.4	0.4
-104	0.4	0.4
-103	0.4	0.4
-102	0.4	0.4
-101	0.4	0.4
-100	0.4	0.4
-99	0.5	0.5
-98	0.5	0.5
-97	0.5	0.5
-96	0.5	0.5
-95	0.5	0.5
-94	0.5	0.5
-93	0.5	0.5
-92	0.5	0.5
-91	0.5	0.5
-90	0.6	0.6
-89	0.6	0.6
-88	0.6	0.6
-87	0.6	0.6
-86	0.6	0.6
-85	0.6	0.6
-84	0.7	0.7
-83	0.7	0.7
-82	0.7	0.7
-81	0.7	0.7
-80	0.7	0.7
-79	0.7	0.8
-78	0.8	0.8
-77	0.8	0.8
-76	0.8	0.8
-75	0.8	0.8
-74	0.9	0.9
-73	0.9	0.9

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-72	0.9	0.9
-71	1.0	1.0
-70	1.0	1.0
-69	1.0	1.0
-68	1.1	1.1
-67	1.1	1.1
-66	1.1	1.1
-65	1.2	1.2
-64	1.2	1.2
-63	1.3	1.3
-62	1.3	1.3
-61	1.4	1.4
-60	1.4	1.4
-59	1.5	1.5
-58	1.5	1.5
-57	1.6	1.6
-56	1.7	1.7
-55	1.7	1.8
-54	1.8	1.8
-53	1.9	1.9
-52	2.0	2.0
-51	2.1	2.1
-50	2.2	2.2
-49	2.3	2.3
-48	2.5	2.5
-47	2.6	2.6
-46	2.7	2.8
-45	2.9	2.9
-44	3.1	3.1
-43	3.3	3.3
-42	3.5	3.5
-41	3.7	3.8
-40	4.0	4.1
-39	4.3	4.4
-38	4.6	4.7
-37	5.0	5.1
-36	5.4	5.5
-35	5.9	6.0
-34	6.4	6.6
-33	7.0	7.2
-32	7.7	7.9
-31	8.5	8.8
-30	9.4	9.8
-29	10.4	10.9
-28	11.6	12.3

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-27	13.0	13.9
-26	14.6	15.7
-25	16.5	17.9
-24	18.7	20.5
-23	21.1	23.5
-22	23.7	26.9
-21	26.5	30.6
-20	29.3	34.4
-19	31.9	38.0
-18	33.8	40.9
-17	34.7	42.4
-16	34.5	42.3
-15	33.2	40.5
-14	31.0	37.3
-13	28.2	33.5
-12	25.2	29.5
-11	22.2	25.7
-10	19.5	22.3
-9	17.1	19.4
-8	15.1	16.9
-7	13.3	14.9
-6	11.9	13.2
-5	10.7	11.9
-4	9.8	10.9
-3	9.1	10.2
-2	8.7	9.6
-1	8.4	9.3
0	8.3	9.2
1	8.4	9.3
2	8.7	9.6
3	9.1	10.2
4	9.8	10.9
5	10.7	11.9
6	11.9	13.2
7	13.3	14.9
8	15.1	16.9
9	17.1	19.4
10	19.5	22.3
11	22.2	25.7
12	25.2	29.5
13	28.2	33.5
14	31.0	37.3
15	33.2	40.5
16	34.5	42.3
17	34.7	42.4

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
18	33.8	40.9
19	31.9	38.0
20	29.3	34.4
21	26.5	30.6
22	23.7	26.9
23	21.1	23.5
24	18.7	20.5
25	16.5	17.9
26	14.6	15.7
27	13.0	13.9
28	11.6	12.3
29	10.4	10.9
30	9.4	9.8
31	8.5	8.8
32	7.7	7.9
33	7.0	7.2
34	6.4	6.6
35	5.9	6.0
36	5.4	5.5
37	5.0	5.1
38	4.6	4.7
39	4.3	4.4
40	4.0	4.1
41	3.7	3.8
42	3.5	3.5
43	3.3	3.3
44	3.1	3.1
45	2.9	2.9
46	2.7	2.8
47	2.6	2.6
48	2.5	2.5
49	2.3	2.3
50	2.2	2.2
51	2.1	2.1
52	2.0	2.0
53	1.9	1.9
54	1.8	1.8
55	1.7	1.8
56	1.7	1.7
57	1.6	1.6
58	1.5	1.5
59	1.5	1.5
60	1.4	1.4
61	1.4	1.4
62	1.3	1.3

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
63	1.3	1.3
64	1.2	1.2
65	1.2	1.2
66	1.1	1.1
67	1.1	1.1
68	1.1	1.1
69	1.0	1.0
70	1.0	1.0
71	1.0	1.0
72	0.9	0.9
73	0.9	0.9
74	0.9	0.9
75	0.8	0.8
76	0.8	0.8
77	0.8	0.8
78	0.8	0.8
79	0.7	0.8
80	0.7	0.7
81	0.7	0.7
82	0.7	0.7
83	0.7	0.7
84	0.7	0.7
85	0.6	0.6
86	0.6	0.6
87	0.6	0.6
88	0.6	0.6
89	0.6	0.6
90	0.6	0.6
91	0.5	0.5
92	0.5	0.5
93	0.5	0.5
94	0.5	0.5
95	0.5	0.5
96	0.5	0.5
97	0.5	0.5
98	0.5	0.5
99	0.5	0.5
100	0.4	0.4
101	0.4	0.4
102	0.4	0.4
103	0.4	0.4
104	0.4	0.4
105	0.4	0.4
106	0.4	0.4
107	0.4	0.4

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
108	0.4	0.4
109	0.4	0.4
110	0.4	0.4
111	0.4	0.4
112	0.4	0.4
113	0.3	0.3
114	0.3	0.3
115	0.3	0.3
116	0.3	0.3
117	0.3	0.3
118	0.3	0.3
119	0.3	0.3
120	0.3	0.3
121	0.3	0.3
122	0.3	0.3
123	0.3	0.3
124	0.3	0.3
125	0.3	0.3
126	0.3	0.3
127	0.3	0.3
128	0.3	0.3
129	0.3	0.3
130	0.3	0.3
131	0.3	0.3
132	0.2	0.2
133	0.2	0.2
134	0.2	0.2
135	0.2	0.2
136	0.2	0.2
137	0.2	0.2
138	0.2	0.2
139	0.2	0.2
140	0.2	0.2
141	0.2	0.2
142	0.2	0.2
143	0.2	0.2
144	0.2	0.2
145	0.2	0.2
146	0.2	0.2
147	0.2	0.2
148	0.2	0.2
149	0.2	0.2
150	0.2	0.2
151	0.2	0.2
152	0.2	0.2

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
153	0.2	0.2
154	0.2	0.2
155	0.2	0.2
156	0.2	0.2
157	0.2	0.2
158	0.2	0.2
159	0.2	0.2
160	0.2	0.2
161	0.2	0.2
162	0.2	0.2
163	0.2	0.2
164	0.2	0.2
165	0.2	0.2
166	0.2	0.2
167	0.2	0.2
168	0.2	0.2
169	0.1	0.1
170	0.1	0.1
171	0.1	0.1
172	0.1	0.1
173	0.1	0.1
174	0.1	0.1
175	0.1	0.1
176	0.1	0.1
177	0.1	0.1
178	0.1	0.1
179	0.1	0.1
180	0.1	0.1
181	0.1	0.1
182	0.1	0.1
183	0.1	0.1
184	0.1	0.1
185	0.1	0.1
186	0.1	0.1
187	0.1	0.1
188	0.1	0.1
189	0.1	0.1
190	0.1	0.1
191	0.1	0.1
192	0.1	0.1
193	0.1	0.1
194	0.1	0.1
195	0.1	0.1
196	0.1	0.1
197	0.1	0.1

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
198	0.1	0.1
199	0.1	0.1
200	0.1	0.1
201	0.1	0.1
202	0.1	0.1
203	0.1	0.1
204	0.1	0.1
205	0.1	0.1
206	<0.1	<0.1
207	<0.1	<0.1
208	<0.1	<0.1
209	<0.1	<0.1
210	<0.1	<0.1
211	<0.1	<0.1
212	<0.1	<0.1
213	<0.1	<0.1
214	<0.1	<0.1
215	<0.1	<0.1
216	<0.1	<0.1
217	<0.1	<0.1
218	<0.1	<0.1
219	<0.1	<0.1
220	<0.1	<0.1
221	<0.1	<0.1
222	<0.1	<0.1
223	<0.1	<0.1
224	<0.1	<0.1
225	<0.1	<0.1
226	<0.1	<0.1
227	<0.1	<0.1
228	<0.1	<0.1
229	<0.1	<0.1
230	<0.1	<0.1
231	<0.1	<0.1
232	<0.1	<0.1
233	<0.1	<0.1
234	<0.1	<0.1
235	<0.1	<0.1
236	<0.1	<0.1
237	<0.1	<0.1
238	<0.1	<0.1
239	<0.1	<0.1
240	<0.1	<0.1
241	<0.1	<0.1
242	<0.1	<0.1

Continued on next page

Table E-1 – Continued from previous page

Dist (feet)	Submarine Export Cable: Buried	Submarine Export Cable: Surface Laid
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
243	<0.1	<0.1
244	<0.1	<0.1
245	<0.1	<0.1
246	<0.1	<0.1
247	<0.1	<0.1
248	<0.1	<0.1
249	<0.1	<0.1
250	<0.1	<0.1

Table E-2. Calculated magnetic field levels for EW 1 (Typical) and EW 1 (Typical, 10-ft spacing)

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
-250	<0.1	<0.1
-249	<0.1	<0.1
-248	<0.1	<0.1
-247	<0.1	<0.1
-246	<0.1	<0.1
-245	<0.1	<0.1
-244	<0.1	<0.1
-243	<0.1	<0.1
-242	<0.1	<0.1
-241	<0.1	<0.1
-240	<0.1	<0.1
-239	<0.1	<0.1
-238	<0.1	<0.1
-237	<0.1	<0.1
-236	<0.1	<0.1
-235	<0.1	<0.1
-234	<0.1	<0.1
-233	<0.1	<0.1
-232	<0.1	<0.1
-231	<0.1	<0.1
-230	<0.1	<0.1
-229	<0.1	<0.1
-228	<0.1	<0.1
-227	<0.1	<0.1
-226	<0.1	<0.1
-225	<0.1	<0.1
-224	<0.1	<0.1
-223	<0.1	<0.1
-222	<0.1	<0.1
-221	<0.1	<0.1
-220	<0.1	0.1
-219	0.1	0.1
-218	0.1	0.1
-217	0.1	0.1
-216	0.1	0.1
-215	0.1	0.1
-214	0.1	0.1
-213	0.1	0.1
-212	0.1	0.1
-211	0.1	0.1
-210	0.1	0.1
-209	0.1	0.1
-208	0.1	0.1
-207	0.1	0.1
-206	0.1	0.1

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical)	EW 1 (Typical, 10-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-205	0.1	0.1
-204	0.1	0.1
-203	0.1	0.1
-202	0.1	0.1
-201	0.1	0.1
-200	0.1	0.1
-199	0.1	0.1
-198	0.1	0.1
-197	0.1	0.1
-196	0.1	0.1
-195	0.1	0.1
-194	0.1	0.1
-193	0.1	0.1
-192	0.1	0.1
-191	0.1	0.1
-190	0.1	0.1
-189	0.1	0.1
-188	0.1	0.1
-187	0.1	0.1
-186	0.1	0.1
-185	0.1	0.1
-184	0.1	0.1
-183	0.1	0.1
-182	0.1	0.1
-181	0.1	0.1
-180	0.1	0.2
-179	0.2	0.2
-178	0.2	0.2
-177	0.2	0.2
-176	0.2	0.2
-175	0.2	0.2
-174	0.2	0.2
-173	0.2	0.2
-172	0.2	0.2
-171	0.2	0.2
-170	0.2	0.2
-169	0.2	0.2
-168	0.2	0.2
-167	0.2	0.2
-166	0.2	0.2
-165	0.2	0.2
-164	0.2	0.2
-163	0.2	0.2
-162	0.2	0.2
-161	0.2	0.2

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
-160	0.2	0.2
-159	0.2	0.2
-158	0.2	0.2
-157	0.2	0.2
-156	0.2	0.2
-155	0.2	0.2
-154	0.2	0.2
-153	0.2	0.2
-152	0.2	0.2
-151	0.2	0.2
-150	0.2	0.2
-149	0.2	0.2
-148	0.2	0.2
-147	0.2	0.2
-146	0.2	0.2
-145	0.2	0.2
-144	0.2	0.2
-143	0.2	0.2
-142	0.2	0.2
-141	0.2	0.2
-140	0.2	0.2
-139	0.2	0.3
-138	0.3	0.3
-137	0.3	0.3
-136	0.3	0.3
-135	0.3	0.3
-134	0.3	0.3
-133	0.3	0.3
-132	0.3	0.3
-131	0.3	0.3
-130	0.3	0.3
-129	0.3	0.3
-128	0.3	0.3
-127	0.3	0.3
-126	0.3	0.3
-125	0.3	0.3
-124	0.3	0.3
-123	0.3	0.3
-122	0.3	0.3
-121	0.3	0.3
-120	0.3	0.3
-119	0.3	0.3
-118	0.3	0.4
-117	0.4	0.4
-116	0.4	0.4

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
-115	0.4	0.4
-114	0.4	0.4
-113	0.4	0.4
-112	0.4	0.4
-111	0.4	0.4
-110	0.4	0.4
-109	0.4	0.4
-108	0.4	0.4
-107	0.4	0.4
-106	0.4	0.4
-105	0.4	0.4
-104	0.4	0.5
-103	0.5	0.5
-102	0.5	0.5
-101	0.5	0.5
-100	0.5	0.5
-99	0.5	0.5
-98	0.5	0.5
-97	0.5	0.5
-96	0.5	0.5
-95	0.5	0.5
-94	0.5	0.6
-93	0.6	0.6
-92	0.6	0.6
-91	0.6	0.6
-90	0.6	0.6
-89	0.6	0.6
-88	0.6	0.6
-87	0.6	0.7
-86	0.7	0.7
-85	0.7	0.7
-84	0.7	0.7
-83	0.7	0.7
-82	0.7	0.7
-81	0.7	0.8
-80	0.8	0.8
-79	0.8	0.8
-78	0.8	0.8
-77	0.8	0.8
-76	0.8	0.9
-75	0.9	0.9
-74	0.9	0.9
-73	0.9	0.9
-72	0.9	1.0
-71	1.0	1.0

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
-70	1.0	1.0
-69	1.0	1.0
-68	1.0	1.1
-67	1.1	1.1
-66	1.1	1.2
-65	1.1	1.2
-64	1.2	1.2
-63	1.2	1.3
-62	1.2	1.3
-61	1.3	1.4
-60	1.3	1.4
-59	1.4	1.5
-58	1.4	1.5
-57	1.5	1.6
-56	1.5	1.6
-55	1.6	1.7
-54	1.6	1.7
-53	1.7	1.8
-52	1.8	1.9
-51	1.8	2.0
-50	1.9	2.0
-49	2.0	2.1
-48	2.0	2.2
-47	2.1	2.3
-46	2.2	2.4
-45	2.3	2.6
-44	2.4	2.7
-43	2.5	2.8
-42	2.7	3.0
-41	2.8	3.1
-40	2.9	3.3
-39	3.1	3.5
-38	3.2	3.7
-37	3.4	3.9
-36	3.6	4.1
-35	3.8	4.4
-34	4.0	4.7
-33	4.2	5.0
-32	4.4	5.3
-31	4.7	5.7
-30	5.0	6.1
-29	5.3	6.6
-28	5.7	7.2
-27	6.1	7.8
-26	6.5	8.4

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
-25	7.0	9.2
-24	7.5	10.1
-23	8.1	11.1
-22	8.7	12.2
-21	9.5	13.6
-20	10.3	15.1
-19	11.2	16.9
-18	12.2	19.1
-17	13.4	21.6
-16	14.7	24.5
-15	16.1	27.9
-14	17.8	32.0
-13	19.7	36.6
-12	21.8	42.0
-11	24.2	47.9
-10	26.8	54.2
-9	29.7	60.6
-8	32.6	66.4
-7	35.6	71.2
-6	38.4	74.5
-5	40.6	76.0
-4	41.8	76.1
-3	42.0	75.1
-2	41.0	73.8
-1	39.7	72.8
0	39.0	72.3
1	39.7	72.8
2	41.0	73.8
3	42.0	75.1
4	41.8	76.1
5	40.6	76.0
6	38.4	74.5
7	35.6	71.2
8	32.6	66.4
9	29.7	60.6
10	26.8	54.2
11	24.2	47.9
12	21.8	42.0
13	19.7	36.6
14	17.8	32.0
15	16.1	27.9
16	14.7	24.5
17	13.4	21.6
18	12.2	19.1
19	11.2	16.9

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
20	10.3	15.1
21	9.5	13.6
22	8.7	12.2
23	8.1	11.1
24	7.5	10.1
25	7.0	9.2
26	6.5	8.4
27	6.1	7.8
28	5.7	7.2
29	5.3	6.6
30	5.0	6.1
31	4.7	5.7
32	4.4	5.3
33	4.2	5.0
34	4.0	4.7
35	3.8	4.4
36	3.6	4.1
37	3.4	3.9
38	3.2	3.7
39	3.1	3.5
40	2.9	3.3
41	2.8	3.1
42	2.7	3.0
43	2.5	2.8
44	2.4	2.7
45	2.3	2.6
46	2.2	2.4
47	2.1	2.3
48	2.0	2.2
49	2.0	2.1
50	1.9	2.0
51	1.8	2.0
52	1.8	1.9
53	1.7	1.8
54	1.6	1.7
55	1.6	1.7
56	1.5	1.6
57	1.5	1.6
58	1.4	1.5
59	1.4	1.5
60	1.3	1.4
61	1.3	1.4
62	1.2	1.3
63	1.2	1.3
64	1.2	1.2

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
65	1.1	1.2
66	1.1	1.2
67	1.1	1.1
68	1.0	1.1
69	1.0	1.0
70	1.0	1.0
71	1.0	1.0
72	0.9	1.0
73	0.9	0.9
74	0.9	0.9
75	0.9	0.9
76	0.8	0.9
77	0.8	0.8
78	0.8	0.8
79	0.8	0.8
80	0.8	0.8
81	0.7	0.8
82	0.7	0.7
83	0.7	0.7
84	0.7	0.7
85	0.7	0.7
86	0.7	0.7
87	0.6	0.7
88	0.6	0.6
89	0.6	0.6
90	0.6	0.6
91	0.6	0.6
92	0.6	0.6
93	0.6	0.6
94	0.5	0.6
95	0.5	0.5
96	0.5	0.5
97	0.5	0.5
98	0.5	0.5
99	0.5	0.5
100	0.5	0.5
101	0.5	0.5
102	0.5	0.5
103	0.5	0.5
104	0.4	0.5
105	0.4	0.4
106	0.4	0.4
107	0.4	0.4
108	0.4	0.4
109	0.4	0.4

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
110	0.4	0.4
111	0.4	0.4
112	0.4	0.4
113	0.4	0.4
114	0.4	0.4
115	0.4	0.4
116	0.4	0.4
117	0.4	0.4
118	0.3	0.4
119	0.3	0.3
120	0.3	0.3
121	0.3	0.3
122	0.3	0.3
123	0.3	0.3
124	0.3	0.3
125	0.3	0.3
126	0.3	0.3
127	0.3	0.3
128	0.3	0.3
129	0.3	0.3
130	0.3	0.3
131	0.3	0.3
132	0.3	0.3
133	0.3	0.3
134	0.3	0.3
135	0.3	0.3
136	0.3	0.3
137	0.3	0.3
138	0.3	0.3
139	0.2	0.3
140	0.2	0.2
141	0.2	0.2
142	0.2	0.2
143	0.2	0.2
144	0.2	0.2
145	0.2	0.2
146	0.2	0.2
147	0.2	0.2
148	0.2	0.2
149	0.2	0.2
150	0.2	0.2
151	0.2	0.2
152	0.2	0.2
153	0.2	0.2
154	0.2	0.2

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
155	0.2	0.2
156	0.2	0.2
157	0.2	0.2
158	0.2	0.2
159	0.2	0.2
160	0.2	0.2
161	0.2	0.2
162	0.2	0.2
163	0.2	0.2
164	0.2	0.2
165	0.2	0.2
166	0.2	0.2
167	0.2	0.2
168	0.2	0.2
169	0.2	0.2
170	0.2	0.2
171	0.2	0.2
172	0.2	0.2
173	0.2	0.2
174	0.2	0.2
175	0.2	0.2
176	0.2	0.2
177	0.2	0.2
178	0.2	0.2
179	0.2	0.2
180	0.1	0.2
181	0.1	0.1
182	0.1	0.1
183	0.1	0.1
184	0.1	0.1
185	0.1	0.1
186	0.1	0.1
187	0.1	0.1
188	0.1	0.1
189	0.1	0.1
190	0.1	0.1
191	0.1	0.1
192	0.1	0.1
193	0.1	0.1
194	0.1	0.1
195	0.1	0.1
196	0.1	0.1
197	0.1	0.1
198	0.1	0.1
199	0.1	0.1

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	EW 1 (Typical) Magnetic Field Maximum (mG)	EW 1 (Typical, 10-ft spacing) Magnetic Field Maximum (mG)
200	0.1	0.1
201	0.1	0.1
202	0.1	0.1
203	0.1	0.1
204	0.1	0.1
205	0.1	0.1
206	0.1	0.1
207	0.1	0.1
208	0.1	0.1
209	0.1	0.1
210	0.1	0.1
211	0.1	0.1
212	0.1	0.1
213	0.1	0.1
214	0.1	0.1
215	0.1	0.1
216	0.1	0.1
217	0.1	0.1
218	0.1	0.1
219	0.1	0.1
220	<0.1	0.1
221	<0.1	<0.1
222	<0.1	<0.1
223	<0.1	<0.1
224	<0.1	<0.1
225	<0.1	<0.1
226	<0.1	<0.1
227	<0.1	<0.1
228	<0.1	<0.1
229	<0.1	<0.1
230	<0.1	<0.1
231	<0.1	<0.1
232	<0.1	<0.1
233	<0.1	<0.1
234	<0.1	<0.1
235	<0.1	<0.1
236	<0.1	<0.1
237	<0.1	<0.1
238	<0.1	<0.1
239	<0.1	<0.1
240	<0.1	<0.1
241	<0.1	<0.1
242	<0.1	<0.1
243	<0.1	<0.1
244	<0.1	<0.1

Continued on next page

Table E-2 – Continued from previous page

Dist (feet)	<u>EW 1 (Typical)</u>	<u>EW 1 (Typical, 10-ft spacing)</u>
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
245	<0.1	<0.1
246	<0.1	<0.1
247	<0.1	<0.1
248	<0.1	<0.1
249	<0.1	<0.1
250	<0.1	<0.1

Table E-3. Calculated magnetic field levels for EW 1 (Road Crossing, 10-ft spacing) and EW 1 (Road Crossing, 20-ft spacing)

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-250	<0.1	<0.1
-249	<0.1	<0.1
-248	<0.1	<0.1
-247	<0.1	<0.1
-246	<0.1	<0.1
-245	<0.1	<0.1
-244	<0.1	<0.1
-243	<0.1	<0.1
-242	<0.1	<0.1
-241	<0.1	<0.1
-240	<0.1	<0.1
-239	<0.1	<0.1
-238	<0.1	<0.1
-237	<0.1	<0.1
-236	<0.1	<0.1
-235	<0.1	<0.1
-234	<0.1	<0.1
-233	<0.1	<0.1
-232	<0.1	<0.1
-231	<0.1	<0.1
-230	<0.1	<0.1
-229	<0.1	<0.1
-228	<0.1	<0.1
-227	<0.1	<0.1
-226	<0.1	<0.1
-225	<0.1	<0.1
-224	<0.1	<0.1
-223	<0.1	<0.1
-222	<0.1	<0.1
-221	<0.1	0.1
-220	0.1	0.1
-219	0.1	0.1
-218	0.1	0.1
-217	0.1	0.1
-216	0.1	0.1
-215	0.1	0.1
-214	0.1	0.1
-213	0.1	0.1
-212	0.1	0.1
-211	0.1	0.1
-210	0.1	0.1
-209	0.1	0.1
-208	0.1	0.1

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-207	0.1	0.1
-206	0.1	0.1
-205	0.1	0.1
-204	0.1	0.1
-203	0.1	0.1
-202	0.1	0.1
-201	0.1	0.1
-200	0.1	0.1
-199	0.1	0.1
-198	0.1	0.1
-197	0.1	0.1
-196	0.1	0.1
-195	0.1	0.1
-194	0.1	0.1
-193	0.1	0.1
-192	0.1	0.1
-191	0.1	0.1
-190	0.1	0.1
-189	0.1	0.1
-188	0.1	0.1
-187	0.1	0.1
-186	0.1	0.1
-185	0.1	0.1
-184	0.1	0.1
-183	0.1	0.1
-182	0.1	0.1
-181	0.1	0.2
-180	0.1	0.2
-179	0.2	0.2
-178	0.2	0.2
-177	0.2	0.2
-176	0.2	0.2
-175	0.2	0.2
-174	0.2	0.2
-173	0.2	0.2
-172	0.2	0.2
-171	0.2	0.2
-170	0.2	0.2
-169	0.2	0.2
-168	0.2	0.2
-167	0.2	0.2
-166	0.2	0.2
-165	0.2	0.2
-164	0.2	0.2
-163	0.2	0.2

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-162	0.2	0.2
-161	0.2	0.2
-160	0.2	0.2
-159	0.2	0.2
-158	0.2	0.2
-157	0.2	0.2
-156	0.2	0.2
-155	0.2	0.2
-154	0.2	0.2
-153	0.2	0.2
-152	0.2	0.2
-151	0.2	0.2
-150	0.2	0.2
-149	0.2	0.2
-148	0.2	0.2
-147	0.2	0.2
-146	0.2	0.2
-145	0.2	0.2
-144	0.2	0.2
-143	0.2	0.2
-142	0.2	0.2
-141	0.2	0.3
-140	0.2	0.3
-139	0.3	0.3
-138	0.3	0.3
-137	0.3	0.3
-136	0.3	0.3
-135	0.3	0.3
-134	0.3	0.3
-133	0.3	0.3
-132	0.3	0.3
-131	0.3	0.3
-130	0.3	0.3
-129	0.3	0.3
-128	0.3	0.3
-127	0.3	0.3
-126	0.3	0.3
-125	0.3	0.3
-124	0.3	0.3
-123	0.3	0.3
-122	0.3	0.3
-121	0.3	0.3
-120	0.3	0.4
-119	0.3	0.4
-118	0.3	0.4

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-117	0.4	0.4
-116	0.4	0.4
-115	0.4	0.4
-114	0.4	0.4
-113	0.4	0.4
-112	0.4	0.4
-111	0.4	0.4
-110	0.4	0.4
-109	0.4	0.4
-108	0.4	0.4
-107	0.4	0.4
-106	0.4	0.5
-105	0.4	0.5
-104	0.5	0.5
-103	0.5	0.5
-102	0.5	0.5
-101	0.5	0.5
-100	0.5	0.5
-99	0.5	0.5
-98	0.5	0.5
-97	0.5	0.5
-96	0.5	0.6
-95	0.5	0.6
-94	0.6	0.6
-93	0.6	0.6
-92	0.6	0.6
-91	0.6	0.6
-90	0.6	0.6
-89	0.6	0.7
-88	0.6	0.7
-87	0.6	0.7
-86	0.7	0.7
-85	0.7	0.7
-84	0.7	0.7
-83	0.7	0.8
-82	0.7	0.8
-81	0.7	0.8
-80	0.8	0.8
-79	0.8	0.9
-78	0.8	0.9
-77	0.8	0.9
-76	0.8	0.9
-75	0.9	1.0
-74	0.9	1.0
-73	0.9	1.0

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-72	0.9	1.0
-71	1.0	1.1
-70	1.0	1.1
-69	1.0	1.1
-68	1.1	1.2
-67	1.1	1.2
-66	1.1	1.3
-65	1.2	1.3
-64	1.2	1.4
-63	1.2	1.4
-62	1.3	1.5
-61	1.3	1.5
-60	1.4	1.6
-59	1.4	1.6
-58	1.5	1.7
-57	1.5	1.8
-56	1.6	1.8
-55	1.6	1.9
-54	1.7	2.0
-53	1.8	2.1
-52	1.8	2.2
-51	1.9	2.3
-50	2.0	2.4
-49	2.1	2.5
-48	2.2	2.7
-47	2.3	2.8
-46	2.4	2.9
-45	2.5	3.1
-44	2.6	3.3
-43	2.7	3.5
-42	2.8	3.7
-41	3.0	3.9
-40	3.1	4.2
-39	3.3	4.4
-38	3.5	4.7
-37	3.7	5.1
-36	3.9	5.5
-35	4.1	5.9
-34	4.4	6.3
-33	4.7	6.9
-32	5.0	7.4
-31	5.3	8.1
-30	5.7	8.9
-29	6.1	9.7
-28	6.6	10.7

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-27	7.1	11.8
-26	7.7	13.2
-25	8.3	14.7
-24	9.1	16.5
-23	9.9	18.6
-22	10.9	21.1
-21	12.0	24.1
-20	13.2	27.6
-19	14.7	31.8
-18	16.4	36.7
-17	18.5	42.5
-16	20.8	49.3
-15	23.6	56.9
-14	26.9	65.2
-13	30.8	73.7
-12	35.4	81.5
-11	40.7	87.7
-10	46.7	91.5
-9	53.3	92.3
-8	60.2	90.4
-7	66.7	86.4
-6	72.3	81.3
-5	76.4	75.9
-4	78.7	70.9
-3	79.4	66.7
-2	79.1	63.5
-1	78.5	61.4
0	78.3	60.6
1	78.5	61.4
2	79.1	63.5
3	79.4	66.7
4	78.7	70.9
5	76.4	75.9
6	72.3	81.3
7	66.7	86.4
8	60.2	90.4
9	53.3	92.3
10	46.7	91.5
11	40.7	87.7
12	35.4	81.5
13	30.8	73.7
14	26.9	65.2
15	23.6	56.9
16	20.8	49.3
17	18.5	42.5

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
18	16.4	36.7
19	14.7	31.8
20	13.2	27.6
21	12.0	24.1
22	10.9	21.1
23	9.9	18.6
24	9.1	16.5
25	8.3	14.7
26	7.7	13.2
27	7.1	11.8
28	6.6	10.7
29	6.1	9.7
30	5.7	8.9
31	5.3	8.1
32	5.0	7.4
33	4.7	6.9
34	4.4	6.3
35	4.1	5.9
36	3.9	5.5
37	3.7	5.1
38	3.5	4.7
39	3.3	4.4
40	3.1	4.2
41	3.0	3.9
42	2.8	3.7
43	2.7	3.5
44	2.6	3.3
45	2.5	3.1
46	2.4	2.9
47	2.3	2.8
48	2.2	2.7
49	2.1	2.5
50	2.0	2.4
51	1.9	2.3
52	1.8	2.2
53	1.8	2.1
54	1.7	2.0
55	1.6	1.9
56	1.6	1.8
57	1.5	1.8
58	1.5	1.7
59	1.4	1.6
60	1.4	1.6
61	1.3	1.5
62	1.3	1.5

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
63	1.2	1.4
64	1.2	1.4
65	1.2	1.3
66	1.1	1.3
67	1.1	1.2
68	1.1	1.2
69	1.0	1.1
70	1.0	1.1
71	1.0	1.1
72	0.9	1.0
73	0.9	1.0
74	0.9	1.0
75	0.9	1.0
76	0.8	0.9
77	0.8	0.9
78	0.8	0.9
79	0.8	0.9
80	0.8	0.8
81	0.7	0.8
82	0.7	0.8
83	0.7	0.8
84	0.7	0.7
85	0.7	0.7
86	0.7	0.7
87	0.6	0.7
88	0.6	0.7
89	0.6	0.7
90	0.6	0.6
91	0.6	0.6
92	0.6	0.6
93	0.6	0.6
94	0.6	0.6
95	0.5	0.6
96	0.5	0.6
97	0.5	0.5
98	0.5	0.5
99	0.5	0.5
100	0.5	0.5
101	0.5	0.5
102	0.5	0.5
103	0.5	0.5
104	0.5	0.5
105	0.4	0.5
106	0.4	0.5
107	0.4	0.4

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
108	0.4	0.4
109	0.4	0.4
110	0.4	0.4
111	0.4	0.4
112	0.4	0.4
113	0.4	0.4
114	0.4	0.4
115	0.4	0.4
116	0.4	0.4
117	0.4	0.4
118	0.3	0.4
119	0.3	0.4
120	0.3	0.4
121	0.3	0.3
122	0.3	0.3
123	0.3	0.3
124	0.3	0.3
125	0.3	0.3
126	0.3	0.3
127	0.3	0.3
128	0.3	0.3
129	0.3	0.3
130	0.3	0.3
131	0.3	0.3
132	0.3	0.3
133	0.3	0.3
134	0.3	0.3
135	0.3	0.3
136	0.3	0.3
137	0.3	0.3
138	0.3	0.3
139	0.3	0.3
140	0.2	0.3
141	0.2	0.3
142	0.2	0.2
143	0.2	0.2
144	0.2	0.2
145	0.2	0.2
146	0.2	0.2
147	0.2	0.2
148	0.2	0.2
149	0.2	0.2
150	0.2	0.2
151	0.2	0.2
152	0.2	0.2

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
153	0.2	0.2
154	0.2	0.2
155	0.2	0.2
156	0.2	0.2
157	0.2	0.2
158	0.2	0.2
159	0.2	0.2
160	0.2	0.2
161	0.2	0.2
162	0.2	0.2
163	0.2	0.2
164	0.2	0.2
165	0.2	0.2
166	0.2	0.2
167	0.2	0.2
168	0.2	0.2
169	0.2	0.2
170	0.2	0.2
171	0.2	0.2
172	0.2	0.2
173	0.2	0.2
174	0.2	0.2
175	0.2	0.2
176	0.2	0.2
177	0.2	0.2
178	0.2	0.2
179	0.2	0.2
180	0.1	0.2
181	0.1	0.2
182	0.1	0.1
183	0.1	0.1
184	0.1	0.1
185	0.1	0.1
186	0.1	0.1
187	0.1	0.1
188	0.1	0.1
189	0.1	0.1
190	0.1	0.1
191	0.1	0.1
192	0.1	0.1
193	0.1	0.1
194	0.1	0.1
195	0.1	0.1
196	0.1	0.1
197	0.1	0.1

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
198	0.1	0.1
199	0.1	0.1
200	0.1	0.1
201	0.1	0.1
202	0.1	0.1
203	0.1	0.1
204	0.1	0.1
205	0.1	0.1
206	0.1	0.1
207	0.1	0.1
208	0.1	0.1
209	0.1	0.1
210	0.1	0.1
211	0.1	0.1
212	0.1	0.1
213	0.1	0.1
214	0.1	0.1
215	0.1	0.1
216	0.1	0.1
217	0.1	0.1
218	0.1	0.1
219	0.1	0.1
220	0.1	0.1
221	<0.1	0.1
222	<0.1	<0.1
223	<0.1	<0.1
224	<0.1	<0.1
225	<0.1	<0.1
226	<0.1	<0.1
227	<0.1	<0.1
228	<0.1	<0.1
229	<0.1	<0.1
230	<0.1	<0.1
231	<0.1	<0.1
232	<0.1	<0.1
233	<0.1	<0.1
234	<0.1	<0.1
235	<0.1	<0.1
236	<0.1	<0.1
237	<0.1	<0.1
238	<0.1	<0.1
239	<0.1	<0.1
240	<0.1	<0.1
241	<0.1	<0.1
242	<0.1	<0.1

Continued on next page

Table E-3 – Continued from previous page

Dist (feet)	EW 1 (Road Crossing, 10-ft spacing)	EW 1 (Road Crossing, 20-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
243	<0.1	<0.1
244	<0.1	<0.1
245	<0.1	<0.1
246	<0.1	<0.1
247	<0.1	<0.1
248	<0.1	<0.1
249	<0.1	<0.1
250	<0.1	<0.1

Table E-4. Calculated magnetic field levels for EW 1 (Flat, 0-ft spacing) and EW 1 (Flat, 10-ft spacing)

Dist (feet)	EW 1 (Flat, 0-ft spacing)	EW 1 (Flat, 10-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-250	<0.1	<0.1
-249	<0.1	<0.1
-248	<0.1	<0.1
-247	<0.1	<0.1
-246	<0.1	<0.1
-245	<0.1	<0.1
-244	<0.1	<0.1
-243	<0.1	<0.1
-242	<0.1	<0.1
-241	<0.1	<0.1
-240	<0.1	<0.1
-239	<0.1	<0.1
-238	<0.1	<0.1
-237	<0.1	<0.1
-236	<0.1	<0.1
-235	<0.1	<0.1
-234	<0.1	<0.1
-233	<0.1	<0.1
-232	<0.1	<0.1
-231	<0.1	<0.1
-230	<0.1	<0.1
-229	<0.1	<0.1
-228	<0.1	<0.1
-227	<0.1	<0.1
-226	<0.1	<0.1
-225	<0.1	<0.1
-224	<0.1	<0.1
-223	<0.1	<0.1
-222	<0.1	<0.1
-221	<0.1	<0.1
-220	<0.1	<0.1
-219	<0.1	<0.1
-218	<0.1	<0.1
-217	<0.1	<0.1
-216	<0.1	<0.1
-215	<0.1	<0.1
-214	<0.1	<0.1
-213	<0.1	<0.1
-212	<0.1	<0.1
-211	<0.1	<0.1
-210	<0.1	<0.1
-209	<0.1	<0.1
-208	<0.1	<0.1
-207	<0.1	<0.1
-206	<0.1	<0.1

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing)	EW 1 (Flat, 10-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
-205	<0.1	<0.1
-204	<0.1	<0.1
-203	<0.1	<0.1
-202	<0.1	<0.1
-201	<0.1	<0.1
-200	<0.1	<0.1
-199	<0.1	<0.1
-198	<0.1	<0.1
-197	<0.1	<0.1
-196	<0.1	<0.1
-195	<0.1	<0.1
-194	<0.1	<0.1
-193	<0.1	<0.1
-192	<0.1	<0.1
-191	<0.1	<0.1
-190	<0.1	<0.1
-189	<0.1	<0.1
-188	<0.1	<0.1
-187	<0.1	<0.1
-186	<0.1	<0.1
-185	<0.1	<0.1
-184	<0.1	<0.1
-183	<0.1	<0.1
-182	<0.1	<0.1
-181	<0.1	<0.1
-180	<0.1	<0.1
-179	<0.1	<0.1
-178	<0.1	<0.1
-177	<0.1	<0.1
-176	<0.1	<0.1
-175	<0.1	<0.1
-174	<0.1	<0.1
-173	<0.1	<0.1
-172	<0.1	<0.1
-171	<0.1	<0.1
-170	<0.1	<0.1
-169	<0.1	<0.1
-168	<0.1	<0.1
-167	<0.1	<0.1
-166	<0.1	<0.1
-165	<0.1	<0.1
-164	<0.1	<0.1
-163	<0.1	<0.1
-162	<0.1	<0.1
-161	<0.1	<0.1

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing) Magnetic Field Maximum (mG)	EW 1 (Flat, 10-ft spacing) Magnetic Field Maximum (mG)
-160	<0.1	<0.1
-159	<0.1	<0.1
-158	<0.1	<0.1
-157	<0.1	<0.1
-156	<0.1	<0.1
-155	<0.1	<0.1
-154	<0.1	<0.1
-153	<0.1	<0.1
-152	<0.1	<0.1
-151	<0.1	<0.1
-150	<0.1	<0.1
-149	<0.1	<0.1
-148	<0.1	<0.1
-147	<0.1	<0.1
-146	<0.1	<0.1
-145	<0.1	<0.1
-144	<0.1	<0.1
-143	<0.1	<0.1
-142	<0.1	<0.1
-141	<0.1	<0.1
-140	<0.1	<0.1
-139	<0.1	0.1
-138	<0.1	0.1
-137	<0.1	0.1
-136	<0.1	0.1
-135	<0.1	0.1
-134	<0.1	0.1
-133	<0.1	0.1
-132	<0.1	0.1
-131	<0.1	0.1
-130	<0.1	0.1
-129	<0.1	0.1
-128	<0.1	0.1
-127	<0.1	0.1
-126	<0.1	0.1
-125	<0.1	0.1
-124	<0.1	0.1
-123	<0.1	0.1
-122	<0.1	0.2
-121	<0.1	0.2
-120	<0.1	0.2
-119	<0.1	0.2
-118	<0.1	0.2
-117	<0.1	0.2
-116	<0.1	0.2

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing) Magnetic Field Maximum (mG)	EW 1 (Flat, 10-ft spacing) Magnetic Field Maximum (mG)
-115	<0.1	0.2
-114	<0.1	0.2
-113	<0.1	0.2
-112	<0.1	0.2
-111	<0.1	0.2
-110	<0.1	0.2
-109	<0.1	0.2
-108	<0.1	0.2
-107	<0.1	0.2
-106	<0.1	0.2
-105	<0.1	0.2
-104	<0.1	0.2
-103	<0.1	0.3
-102	<0.1	0.3
-101	<0.1	0.3
-100	<0.1	0.3
-99	<0.1	0.3
-98	<0.1	0.3
-97	<0.1	0.3
-96	<0.1	0.3
-95	<0.1	0.3
-94	<0.1	0.3
-93	<0.1	0.3
-92	<0.1	0.4
-91	<0.1	0.4
-90	<0.1	0.4
-89	<0.1	0.4
-88	0.1	0.4
-87	0.1	0.4
-86	0.1	0.4
-85	0.1	0.4
-84	0.1	0.5
-83	0.1	0.5
-82	0.1	0.5
-81	0.1	0.5
-80	0.1	0.5
-79	0.1	0.6
-78	0.1	0.6
-77	0.2	0.6
-76	0.2	0.6
-75	0.2	0.7
-74	0.2	0.7
-73	0.2	0.7
-72	0.2	0.7
-71	0.2	0.8

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing) Magnetic Field Maximum (mG)	EW 1 (Flat, 10-ft spacing) Magnetic Field Maximum (mG)
-70	0.2	0.8
-69	0.2	0.8
-68	0.2	0.9
-67	0.2	0.9
-66	0.2	1.0
-65	0.2	1.0
-64	0.3	1.0
-63	0.3	1.1
-62	0.3	1.2
-61	0.3	1.2
-60	0.3	1.3
-59	0.3	1.3
-58	0.3	1.4
-57	0.4	1.5
-56	0.4	1.6
-55	0.4	1.7
-54	0.4	1.7
-53	0.5	1.8
-52	0.5	2.0
-51	0.5	2.1
-50	0.5	2.2
-49	0.6	2.3
-48	0.6	2.5
-47	0.7	2.7
-46	0.7	2.8
-45	0.7	3.0
-44	0.8	3.2
-43	0.8	3.5
-42	0.9	3.7
-41	1.0	4.0
-40	1.0	4.3
-39	1.1	4.7
-38	1.2	5.0
-37	1.3	5.4
-36	1.4	5.9
-35	1.5	6.4
-34	1.7	7.0
-33	1.8	7.7
-32	2.0	8.4
-31	2.2	9.3
-30	2.4	10.2
-29	2.6	11.3
-28	2.9	12.6
-27	3.2	14.0
-26	3.6	15.7

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing) Magnetic Field Maximum (mG)	EW 1 (Flat, 10-ft spacing) Magnetic Field Maximum (mG)
-25	4.0	17.6
-24	4.5	19.8
-23	5.1	22.5
-22	5.7	25.6
-21	6.5	29.3
-20	7.4	33.7
-19	8.5	39.0
-18	9.8	45.4
-17	11.3	53.1
-16	13.2	62.4
-15	15.6	73.7
-14	18.4	87.3
-13	21.9	103.4
-12	26.3	122.3
-11	31.8	143.6
-10	38.6	166.6
-9	47.1	189.5
-8	57.7	210.1
-7	70.6	226.1
-6	85.9	235.6
-5	103.4	238.4
-4	122.1	235.7
-3	140.3	230.0
-2	155.8	223.7
-1	166.4	219.1
0	170.1	217.4
1	166.4	219.1
2	155.8	223.7
3	140.3	230.0
4	122.1	235.7
5	103.4	238.4
6	85.9	235.6
7	70.6	226.1
8	57.7	210.1
9	47.1	189.5
10	38.6	166.6
11	31.8	143.6
12	26.3	122.3
13	21.9	103.4
14	18.4	87.3
15	15.6	73.7
16	13.2	62.4
17	11.3	53.1
18	9.8	45.4
19	8.5	39.0

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing)	EW 1 (Flat, 10-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
20	7.4	33.7
21	6.5	29.3
22	5.7	25.6
23	5.1	22.5
24	4.5	19.8
25	4.0	17.6
26	3.6	15.7
27	3.2	14.0
28	2.9	12.6
29	2.6	11.3
30	2.4	10.2
31	2.2	9.3
32	2.0	8.4
33	1.8	7.7
34	1.7	7.0
35	1.5	6.4
36	1.4	5.9
37	1.3	5.4
38	1.2	5.0
39	1.1	4.7
40	1.0	4.3
41	1.0	4.0
42	0.9	3.7
43	0.8	3.5
44	0.8	3.2
45	0.7	3.0
46	0.7	2.8
47	0.7	2.7
48	0.6	2.5
49	0.6	2.3
50	0.5	2.2
51	0.5	2.1
52	0.5	2.0
53	0.5	1.8
54	0.4	1.7
55	0.4	1.7
56	0.4	1.6
57	0.4	1.5
58	0.3	1.4
59	0.3	1.3
60	0.3	1.3
61	0.3	1.2
62	0.3	1.2
63	0.3	1.1
64	0.3	1.0

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing) Magnetic Field Maximum (mG)	EW 1 (Flat, 10-ft spacing) Magnetic Field Maximum (mG)
65	0.2	1.0
66	0.2	1.0
67	0.2	0.9
68	0.2	0.9
69	0.2	0.8
70	0.2	0.8
71	0.2	0.8
72	0.2	0.7
73	0.2	0.7
74	0.2	0.7
75	0.2	0.7
76	0.2	0.6
77	0.2	0.6
78	0.1	0.6
79	0.1	0.6
80	0.1	0.5
81	0.1	0.5
82	0.1	0.5
83	0.1	0.5
84	0.1	0.5
85	0.1	0.4
86	0.1	0.4
87	0.1	0.4
88	0.1	0.4
89	<0.1	0.4
90	<0.1	0.4
91	<0.1	0.4
92	<0.1	0.4
93	<0.1	0.3
94	<0.1	0.3
95	<0.1	0.3
96	<0.1	0.3
97	<0.1	0.3
98	<0.1	0.3
99	<0.1	0.3
100	<0.1	0.3
101	<0.1	0.3
102	<0.1	0.3
103	<0.1	0.3
104	<0.1	0.2
105	<0.1	0.2
106	<0.1	0.2
107	<0.1	0.2
108	<0.1	0.2
109	<0.1	0.2

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing) Magnetic Field Maximum (mG)	EW 1 (Flat, 10-ft spacing) Magnetic Field Maximum (mG)
110	<0.1	0.2
111	<0.1	0.2
112	<0.1	0.2
113	<0.1	0.2
114	<0.1	0.2
115	<0.1	0.2
116	<0.1	0.2
117	<0.1	0.2
118	<0.1	0.2
119	<0.1	0.2
120	<0.1	0.2
121	<0.1	0.2
122	<0.1	0.2
123	<0.1	0.1
124	<0.1	0.1
125	<0.1	0.1
126	<0.1	0.1
127	<0.1	0.1
128	<0.1	0.1
129	<0.1	0.1
130	<0.1	0.1
131	<0.1	0.1
132	<0.1	0.1
133	<0.1	0.1
134	<0.1	0.1
135	<0.1	0.1
136	<0.1	0.1
137	<0.1	0.1
138	<0.1	0.1
139	<0.1	0.1
140	<0.1	<0.1
141	<0.1	<0.1
142	<0.1	<0.1
143	<0.1	<0.1
144	<0.1	<0.1
145	<0.1	<0.1
146	<0.1	<0.1
147	<0.1	<0.1
148	<0.1	<0.1
149	<0.1	<0.1
150	<0.1	<0.1
151	<0.1	<0.1
152	<0.1	<0.1
153	<0.1	<0.1
154	<0.1	<0.1

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing)	EW 1 (Flat, 10-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
155	<0.1	<0.1
156	<0.1	<0.1
157	<0.1	<0.1
158	<0.1	<0.1
159	<0.1	<0.1
160	<0.1	<0.1
161	<0.1	<0.1
162	<0.1	<0.1
163	<0.1	<0.1
164	<0.1	<0.1
165	<0.1	<0.1
166	<0.1	<0.1
167	<0.1	<0.1
168	<0.1	<0.1
169	<0.1	<0.1
170	<0.1	<0.1
171	<0.1	<0.1
172	<0.1	<0.1
173	<0.1	<0.1
174	<0.1	<0.1
175	<0.1	<0.1
176	<0.1	<0.1
177	<0.1	<0.1
178	<0.1	<0.1
179	<0.1	<0.1
180	<0.1	<0.1
181	<0.1	<0.1
182	<0.1	<0.1
183	<0.1	<0.1
184	<0.1	<0.1
185	<0.1	<0.1
186	<0.1	<0.1
187	<0.1	<0.1
188	<0.1	<0.1
189	<0.1	<0.1
190	<0.1	<0.1
191	<0.1	<0.1
192	<0.1	<0.1
193	<0.1	<0.1
194	<0.1	<0.1
195	<0.1	<0.1
196	<0.1	<0.1
197	<0.1	<0.1
198	<0.1	<0.1
199	<0.1	<0.1

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	EW 1 (Flat, 0-ft spacing)	EW 1 (Flat, 10-ft spacing)
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
200	<0.1	<0.1
201	<0.1	<0.1
202	<0.1	<0.1
203	<0.1	<0.1
204	<0.1	<0.1
205	<0.1	<0.1
206	<0.1	<0.1
207	<0.1	<0.1
208	<0.1	<0.1
209	<0.1	<0.1
210	<0.1	<0.1
211	<0.1	<0.1
212	<0.1	<0.1
213	<0.1	<0.1
214	<0.1	<0.1
215	<0.1	<0.1
216	<0.1	<0.1
217	<0.1	<0.1
218	<0.1	<0.1
219	<0.1	<0.1
220	<0.1	<0.1
221	<0.1	<0.1
222	<0.1	<0.1
223	<0.1	<0.1
224	<0.1	<0.1
225	<0.1	<0.1
226	<0.1	<0.1
227	<0.1	<0.1
228	<0.1	<0.1
229	<0.1	<0.1
230	<0.1	<0.1
231	<0.1	<0.1
232	<0.1	<0.1
233	<0.1	<0.1
234	<0.1	<0.1
235	<0.1	<0.1
236	<0.1	<0.1
237	<0.1	<0.1
238	<0.1	<0.1
239	<0.1	<0.1
240	<0.1	<0.1
241	<0.1	<0.1
242	<0.1	<0.1
243	<0.1	<0.1
244	<0.1	<0.1

Continued on next page

Table E-4 – Continued from previous page

Dist (feet)	<u>EW 1 (Flat, 0-ft spacing)</u>	<u>EW 1 (Flat, 10-ft spacing)</u>
	Magnetic Field Maximum (mG)	Magnetic Field Maximum (mG)
245	<0.1	<0.1
246	<0.1	<0.1
247	<0.1	<0.1
248	<0.1	<0.1
249	<0.1	<0.1
250	<0.1	<0.1