Hollandse Kust (zuid) Wind Farm Zone – Wind Farm Site I to IV

Dutch Sector, North Sea

Corrigendum - Determination of Maximum Index Dry Density

N6196/TN-MM | 2 | 2 April 2020

Complete

Rijksdienst voor Ondernemend Nederland

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1. Purpose and Scope

This document represents a corrigendum for maximum index dry density data presented in Fugro reports (Fugro, 2016a and b; Fugro, 2017a to d). These laboratory test data were provided as part of the laboratory test programme of the geotechnical site investigations for the Hollandse Kust (zuid) (HKZ) Wind Farm Zone (WFZ) for Rijksdienst voor Ondernemend Nederland (RVO, client). The HKZ WFZ consists of four wind farm sites (WFS): WFS I to WFS IV.

2. Results

Maximum index dry density testing was scheduled to be performed using an impact compaction method in accordance with test procedure DGI #000 96-07-02 published by the Danish Geotechnical Institute (DGI, 1996) and as described in document FEBV/GEO/APP/007 titled 'Geotechnical Laboratory Tests' in Appendix 1 of the Fugro reports mentioned in Section 1. In this document, this target method will be referred to as 'Method 1'.

In May 2019, results from further geotechnical site investigations were compared with those from the initial site investigations in the HKZ WFZ referenced in Section 1. For the initial site investigations, it was found that:

- the majority of tests was performed according to a method that deviates slightly from Method 1. This method will be referred to as 'Method 1a'. Method 1a differs from Method 1 by initial specimen water content, about 10 % for Method 1a versus about 0 % for Method 1;
- nineteen (19) of 35 test specimens of WFS II were tested using a different method (vibrating hammer method, as described in FEBV/GEO/APP/007). This method will be referred to as 'Method 2'.

All results from the initial site investigations in the HKZ WFZ are tabulated and summarized in graphical form on Plates 1 to 10 following the main text of this document. The plates include soil unit designation as presented in the geological ground model reports for the four wind farm sites (Fugro, 2016c; Fugro, 2017e to g). Plates 2 to 10 include differentiation by wind farm site by means of Borehole ID. For example, 'HKZ2' in HKZ2-BH06-SA refers to WFS II.

The maximum index dry density resulting from Method 1a is probably slightly higher than that for Method 1.

Determination of maximum index dry density using Method 2 results generally in higher values than Methods 1 and 1a. This can be attributed to the higher compactive effort produced by Method 2.

We recommend using caution when combining results from different laboratory test methods for maximum index dry density. Background information on Method 1 and Method 2 and their differences is given in Lunne et al. (2019) as part of a publication on industry practice for determination of minimum and maximum index dry density.

We see limited added value in re-testing. Sample logistics may further put limitations on possible re-testing by Fugro, as sample material is not stored at Fugro.

Although we are not in a position to advise on data certification, we are of the opinion that the test methods and results are according to industry practice and that another round of review and certification should not be required.

3. References

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Fugro, 2016a. *Geotechnical Report – Investigation Data – Geotechnical Borehole Locations – Wind Farm Site I – Hollandse Kust (zuid) Wind Farm Zone – Dutch Sector, North Sea.* Fugro Document No. N6196/01, Issue 4, Final. 14 November 2016. Available at: https://offshorewind.rvo.nl/soilzh [Accessed 13 November 2019]

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Fugro, 2016c. *Geological Ground Model – Wind Farm Site I – Hollandse Kust (zuid) Wind Farm Zone - Dutch Sector, North Sea.* Fugro Document No. N6196/09, Issue 3, Final. 14 November 2016. Available at: https://offshorewind.rvo.nl/soilzh [Accessed 13 November 2019]

Fugro, 2017a. *Geotechnical Report – Investigation Data – Geotechnical Borehole Locations – Wind Farm Site III – Hollandse Kust (zuid) Wind Farm Zone – Dutch Sector, North Sea.* Fugro Document No. N6196/05, Issue 4, Revised Final. 31 August 2017. Available at: https://offshorewind.rvo.nl/soilzh [Accessed 13 November 2019]

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Fugro, 2017c. *Geotechnical Report - Investigation Data – Substation Alpha – Hollandse Kust (zuid) Wind Farm Zone – Dutch Sector, North Sea.* Fugro Document No. N6196/15, Issue 2, Final. 3 February 2017. Available at: https://offshorewind.rvo.nl/soilzh [Accessed 13 November 2019]

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Fugro, 2017e. *Geological Ground Model – Wind Farm Site II – Hollandse Kust (zuid) Wind Farm Zone - Dutch Sector, North Sea.* Fugro Document No. N6196/10, Issue 4, Revised Final. 2 August 2017. Available at: https://offshorewind.rvo.nl/soilzh [Accessed 13 November 2019]

Fugro, 2017f. *Geological Ground Model – Wind Farm Site III – Hollandse Kust (zuid) Wind Farm Zone - Dutch Sector, North Sea.* Fugro Document No. N6196/11, Issue 2, Final. 24 July 2017. Available at: https://offshorewind.rvo.nl/soilzh [Accessed 13 November 2019]

Fugro, 2017g. *Geological Ground Model – Wind Farm Site IV – Hollandse Kust (zuid) Wind Farm Zone - Dutch Sector, North Sea.* Fugro Document No. N6196/12, Issue 2, Final. 24 July 2017. Available at: https://offshorewind.rvo.nl/soilzh [Accessed 13 November 2019]

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4. Use of this document

This corrigendum was prepared according to agreements summarised in Fugro (2016a and b; 2017a and b).

Fugro understands that the presented information will be used for the purpose described above. That purpose was a significant factor in determining the scope and level of the services. If the purpose for which the presented information is used or the client's proposed development or activity changes, this document may no longer be valid.

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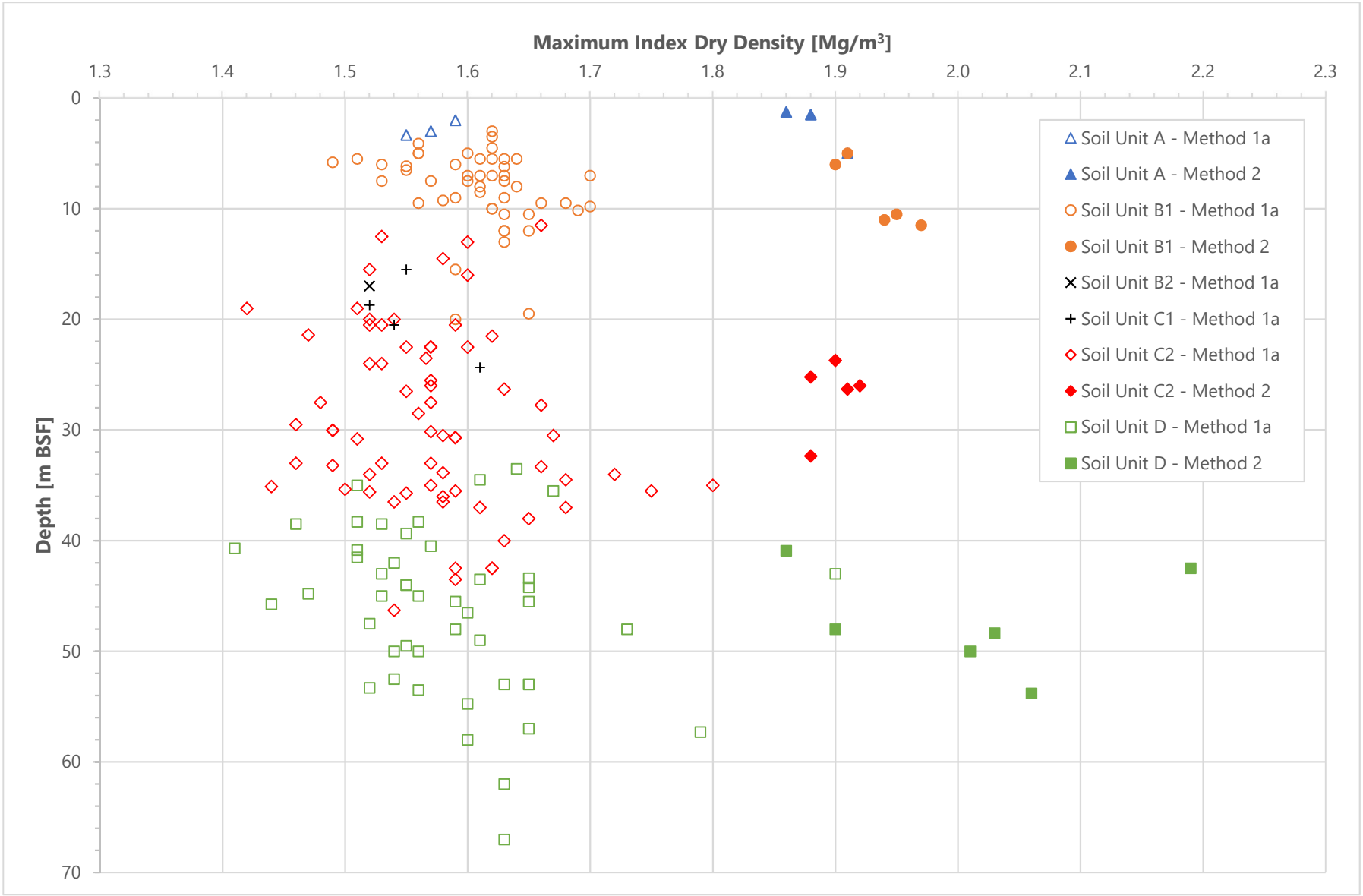
Maximum Index Dry Density [Mg/m³]
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
Depth [m BSF]
0
10
20
30
40
50
60
70
Soil Unit A - Method 1a
Soil Unit A - Method 2
Soil Unit B1 - Method 1a
Soil Unit B1 - Method 2
Soil Unit B2 - Method 1a
Soil Unit C1 - Method 1a
Soil Unit C2 - Method 1a
Soil Unit C2 - Method 2
Soil Unit D - Method 1a
Soil Unit D - Method 2

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ1-BH01-SA	09BagA	B1	7.00	1.42	1.70	Method 1a
HKZ1-BH01-SA	14BagA	B1	12.00	1.34	1.63	Method 1a
HKZ1-BH01-SA	37BagA	C2	34.50	1.29	1.68	Method 1a
HKZ1-BH01-SA	54BagB	D	57.30	1.39	1.79	Method 1a
HKZ1-BH02-SA	07BagA	B1	5.50	1.34	1.64	Method 1a
HKZ1-BH02-SA	09BagA	B1	7.50	1.33	1.53	Method 1a
HKZ1-BH02-SA	21BagB	C1	18.70	1.24	1.52	Method 1a
HKZ1-BH02-SA	23BagA	C1	20.50	1.30	1.54	Method 1a
HKZ1-BH02-SA	41BagB	D	38.30	1.31	1.56	Method 1a
HKZ1-BH02-SA	48BagC	D	45.00	1.15	1.56	Method 1a
HKZ1-BH03-SA	07BagA	B1	3.00	1.41	1.62	Method 1a
HKZ1-BH03-SA	14BagA	B1	7.50	1.38	1.60	Method 1a
HKZ1-BH03-SA	33BagA	C2	24.00	1.16	1.53	Method 1a
HKZ1-BH03-SA	42BagA	C2	33.00	1.14	1.46	Method 1a
HKZ1-BH03-SA	59BagC	D	54.75	1.29	1.60	Method 1a
HKZ1-BH04-SA	10BagA	B1	7.00	1.34	1.63	Method 1a
HKZ1-BH04-SA	34BagB	C2	30.80	1.24	1.51	Method 1a
HKZ1-BH04-SA	44BagA	C2	40.00	1.29	1.63	Method 1a
HKZ1-BH04-SA	56BagA	D	50.00	1.20	1.54	Method 1a
HKZ1-BH05-SA	07BagB	B1	6.20	1.41	1.63	Method 1a
HKZ1-BH05-SA	15BagA	B1	12.00	1.36	1.65	Method 1a
HKZ1-BH05-SA	45BagC	D	40.85	1.27	1.51	Method 1a
HKZ1-BH05-SA	50BagB	D	45.75	1.13	1.44	Method 1a

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ1-BH06-SA	12BagA	B1	9.00	1.36	1.63	Method 1a
HKZ1-BH06-SA	26BagB	C2	21.40	1.07	1.47	Method 1a
HKZ1-BH06-SA	35BagB	C2	30.05	1.08	1.49	Method 1a
HKZ1-BH06-SA	39BagA	C2	34.00	1.23	1.52	Method 1a
HKZ1-BH07-SA	07BagA	B1	5.50	1.40	1.63	Method 1a
HKZ1-BH07-SA	14BagA	B1	9.50	1.42	1.66	Method 1a
HKZ1-BH07-SA	24BagA	B2	17.00	1.21	1.52	Method 1a
HKZ1-BH07-SA	27BagA	C2	20.00	1.23	1.52	Method 1a
HKZ1-BH07-SA	44BagA	C2	36.00	1.32	1.58	Method 1a
HKZ1-BH08-SA	07BagA	B1	5.50	1.38	1.61	Method 1a
HKZ1-BH08-SA	11BagB	B1	9.25	1.31	1.58	Method 1a
HKZ1-BH08-SA	23BagA	C2	20.50	1.25	1.52	Method 1a
HKZ1-BH08-SA	38BagA	C2	35.00	1.31	1.57	Method 1a
HKZ2-BH01-SA	08BagA	B	5.50	1.32	1.51	Method 1a
HKZ2-BH01-SA	13BagB	B	9.80	1.39	1.70	Method 1a
HKZ2-BH01-SA	35BagA	C2	29.50	1.19	1.46	Method 1a
HKZ2-BH01-SA	39BagB	C2	33.85	1.18	1.58	Method 1a
HKZ2-BH01-SA	49BagB	D	43.40	1.20	1.65	Method 1a
HKZ2-BH03-SA	06BagA	A	5.00	1.37	1.91	Method 2
HKZ2-BH03-SA	25BagA	B	19.50	1.38	1.65	Method 1a
HKZ2-BH03-SA	32BagA	C2	26.00	1.37	1.92	Method 2
HKZ2-BH03-SA	38BagB	C2	32.35	1.37	1.88	Method 2
HKZ2-BH03-SA	54BagB	D	48.35	1.37	2.03	Method 2

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ2-BH04-SA	07BagA	B1	6.00	1.45	1.90	Method 2
HKZ2-BH04-SA	34BagC	C2	30.70	1.31	1.59	Method 1a
HKZ2-BH04-SA	46BagC	D	42.50	1.23	2.19	Method 2
HKZ2-BH04-SA	52BagA	D	48.00	1.34	1.90	Method 2
HKZ2-BH06-SA	13BagA	B	10.50	1.38	1.95	Method 2
HKZ2-BH06-SA	31BagB	C2	23.70	1.39	1.90	Method 2
HKZ2-BH06-SA	49BagC	D	40.90	1.31	1.86	Method 2
HKZ2-BH06-SA	59BagA	D	50.00	1.37	2.01	Method 2
HKZ2-BH07-SA	4BagA	A	1.50	1.40	1.88	Method 2
HKZ2-BH07-SA	19BagA	B	11.00	1.40	1.94	Method 2
HKZ2-BH07A-SA	15BagB	C2	25.20	1.30	1.88	Method 2
HKZ2-BH07A-SA	25WaxD	C2	35.10	1.16	1.44	Method 1a
HKZ2-BH07A-SA	41BagB	D	53.80	1.14	2.06	Method 2
HKZ2-BH08-SA	05BagA	A	2.00	1.36	1.59	Method 1a
HKZ2-BH08-SA	21BagA	B	10.50	1.36	1.63	Method 1a
HKZ2-BH08-SA	51BagA	D	34.50	1.21	1.61	Method 1a
HKZ2-BH08-SA	57BagB	D	40.70	1.10	1.41	Method 1a
HKZ2-BH08-SA	62BagA	D	45.50	1.30	1.59	Method 1a
HKZ2-BH12-SA	3BagB	A	1.25	1.38	1.86	Method 2
HKZ2-BH12-SA	13BagC	B	11.50	1.37	1.97	Method 2
HKZ2-BH12-SA	29BagB	C2	26.30	1.37	1.91	Method 2
HKZ2-BH21-SA	09BagA	B1	5.00	1.42	1.91	Method 2
HKZ2-BH21-SA	40BagB	C2	33.30	1.35	1.66	Method 1a

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ2-BH21-SA	44BagA	C2	37.00	1.37	1.68	Method 1a
HKZ2-BH21-SA	59BagB	D	53.30	1.30	1.52	Method 1a
HKZ3-BH01-SA	12BagA	B1	7.50	1.45	1.63	Method 1a
HKZ3-BH01-SA	41BagA	C2	26.50	1.35	1.55	Method 1a
HKZ3-BH01-SA	58BagB	D	38.30	1.17	1.51	Method 1a
HKZ3-BH01-SA	62BagA	D	41.50	1.29	1.51	Method 1a
HKZ3-BH01-SA	73BagA	D	50.00	1.30	1.56	Method 1a
HKZ3-BH01-SA	76BagA	D	58.00	1.35	1.60	Method 1a
HKZ3-BH02-SA	07BagB	B1	5.80	1.19	1.49	Method 1a
HKZ3-BH02-SA	10BagA	B1	8.00	1.34	1.64	Method 1a
HKZ3-BH02-SA	23BagA	C2	19.00	1.14	1.42	Method 1a
HKZ3-BH02A-SA	11BagA	D	38.50	1.12	1.46	Method 1a
HKZ3-BH02A-SA	29BagA	D	47.50	1.27	1.52	Method 1a
HKZ3-BH04-SA	10BagA	B1	6.00	1.39	1.59	Method 1a
HKZ3-BH04-SA	20BagA	C2	12.50	1.27	1.53	Method 1a
HKZ3-BH04-SA	30BagA	C2	19.00	1.30	1.51	Method 1a
HKZ3-BH04-SA	33BagA	C2	20.50	1.32	1.53	Method 1a
HKZ3-BH04-SA	54BagA	D	38.50	1.11	1.53	Method 1a
HKZ3-BH04-SA	66BagA	D	49.50	1.15	1.55	Method 1a
HKZ3-BH06-SA	11BagA	B1	5.00	1.42	1.56	Method 1a
HKZ3-BH06-SA	29BagA	C2	15.50	1.26	1.52	Method 1a
HKZ3-BH06-SA	40BagA	C2	22.50	1.35	1.57	Method 1a
HKZ3-BH06-SA	60BagB	D	39.35	1.27	1.55	Method 1a

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ3-BH06-SA	65BagA	D	44.00	1.37	1.55	Method 1a
HKZ3-BH07-SA	13BagA	B1	8.00	1.35	1.61	Method 1a
HKZ3-BH07A-SA	05BagA	C2	22.50	1.41	1.60	Method 1a
HKZ3-BH07A-SA	31BagA	C2	35.50	1.37	1.59	Method 1a
HKZ3-BH07A-SA	45BagB	D	44.20	1.36	1.65	Method 1a
HKZ3-BH07A-SA	49BagA	D	48.00	1.34	1.59	Method 1a
HKZ3-BH07A-SA	52BagA	D	53.50	1.33	1.56	Method 1a
HKZ3-BH08-SA	05BagA	B1	3.50	1.44	1.62	Method 1a
HKZ3-BH08-SA	15BagA	B1	9.50	1.43	1.68	Method 1a
HKZ3-BH08-SA	31BagA	C2	20.50	1.17	1.59	Method 1a
HKZ3-BH08-SA	56BagA	D	42.00	1.27	1.54	Method 1a
HKZ3-BH08-SA	58BagA	D	44.00	1.31	1.55	Method 1a
HKZ3-BH14-SA	07BagB	B1	4.10	1.36	1.56	Method 1a
HKZ3-BH14-SA	22BagA	C2	11.50	1.46	1.66	Method 1a
HKZ3-BH14-SA	39BagA	C2	22.50	1.31	1.55	Method 1a
HKZ3-BH14-SA	46BagA	C2	27.50	1.28	1.48	Method 1a
HKZ3-BH14-SA	49BagA	D	35.50	1.26	1.67	Method 1a
HKZ3-BH14-SA	52BagA	D	43.50	1.34	1.61	Method 1a
HKZ3-BH22-SA	04BagB	A	3.35	1.26	1.55	Method 1a
HKZ3-BH22-SA	25BagA	C2	16.00	1.38	1.60	Method 1a
HKZ3-BH22A-SA	14BagA	C2	27.50	1.22	1.57	Method 1a
HKZ3-BH22A-SA	25BagA	C2	42.50	1.28	1.62	Method 1a
HKZ3-BH24-SA	12BagA	B1	9.00	1.38	1.59	Method 1a

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ3-BH24-SA	29BagA	C2	23.50	1.34	1.57	Method 1a
HKZ3-BH24-SA	39BagB	C2	30.15	1.15	1.57	Method 1a
HKZ3-BH24-SA	52BagA	C2	37.00	1.19	1.61	Method 1a
HKZ3-BH24-SA	63BagA	C2	42.50	1.22	1.59	Method 1a
HKZ4-BH01-SA	13BagA	B1	6.50	1.39	1.55	Method 1a
HKZ4-BH01-SA	20BagA	B1	10.50	1.44	1.65	Method 1a
HKZ4-BH01-SA	30BagA	B1	15.50	1.40	1.59	Method 1a
HKZ4-BH01-SA	57BagB	C2	35.70	1.27	1.55	Method 1a
HKZ4-BH01-SA	70BagB	C2	46.30	1.24	1.54	Method 1a
HKZ4-BH01-SA	78BagA	D	62.00	1.32	1.63	Method 1a
HKZ4-BH03-SA	08BagA	B1	4.50	1.48	1.62	Method 1a
HKZ4-BH03-SA	16BagB	B1	10.15	1.37	1.69	Method 1a
HKZ4-BH03-SA	35BagA	C2	26.00	1.31	1.57	Method 1a
HKZ4-BH03-SA	44BagB	C2	35.35	1.23	1.50	Method 1a
HKZ4-BH03-SA	55BagB	D	44.80	1.20	1.47	Method 1a
HKZ4-BH04-SA	17BagA	B1	8.50	1.43	1.61	Method 1a
HKZ4-BH04-SA	47BagA	C2	33.00	1.34	1.53	Method 1a
HKZ4-BH04-SA	57BagA	D	43.00	1.23	1.53	Method 1a
HKZ4-BH04-SA	69BagA	D	53.00	1.46	1.65	Method 1a
HKZ4-BH05A-SA	06BagA	B1	7.00	1.42	1.60	Method 1a
HKZ4-BH05A-SA	17BagA	B1	13.00	1.46	1.63	Method 1a
HKZ4-BH05A-SA	43BagB	C2	33.20	1.10	1.49	Method 1a
HKZ4-BH05A-SA	46BagA	D	35.00	1.26	1.51	Method 1a

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ4-BH05A-SA	49BagA	D	43.00	1.37	1.90	Method 1a
HKZ4-BH06-SA	09BagA	B1	7.00	1.45	1.62	Method 1a
HKZ4-BH06-SA	22BagC	C1	15.50	1.19	1.55	Method 1a
HKZ4-BH06-SA	36BagA	C2	25.50	1.31	1.57	Method 1a
HKZ4-BH06-SA	42BagA	C2	28.50	1.33	1.56	Method 1a
HKZ4-BH06-SA	48BagB	D	33.50	1.27	1.64	Method 1a
HKZ4-BH06-SA	57BagA	D	40.50	1.27	1.57	Method 1a
HKZ4-BH07-SA	04BagA	A	3.00	1.45	1.57	Method 1a
HKZ4-BH07-SA	12BagA	B1	7.50	1.37	1.57	Method 1a
HKZ4-BH07-SA	34BagB	C2	26.30	1.34	1.63	Method 1a
HKZ4-BH07-SA	45BagA	C2	35.00	1.38	1.80	Method 1a
HKZ4-BH07-SA	60BagA	D	45.50	1.42	1.65	Method 1a
HKZ4-BH07-SA	68BagA	D	53.00	1.46	1.65	Method 1a
HKZ4-BH08-SA	14BagB	B1	6.15	1.41	1.55	Method 1a
HKZ4-BH08-SA	21BagA	B1	10.00	1.43	1.62	Method 1a
HKZ4-BH08-SA	51BagA	C2	34.00	1.34	1.72	Method 1a
HKZ4-BH08-SA	54BagA	C2	36.50	1.25	1.58	Method 1a
HKZ4-BH08-SA	65BagA	D	45.00	1.25	1.53	Method 1a
HKZ4-BH09-SA	11BagA	B1	7.00	1.44	1.61	Method 1a
HKZ4-BH09-SA	15BagA	B1	10.00	1.39	1.62	Method 1a
HKZ4-BH09-SA	30BagA	C2	20.00	1.24	1.54	Method 1a
HKZ4-BH09-SA	38BagA	C2	24.00	1.24	1.52	Method 1a
HKZ4-BH09-SA	45BagA	C2	30.50	1.35	1.58	Method 1a

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ4-BH09-SA	51BagA	C2	35.50	1.43	1.75	Method 1a
HKZ4-BH09-SA	65BagA	D	48.00	1.51	1.73	Method 1a
HKZ4-BH10-SA	07BagA	B1	5.00	1.39	1.56	Method 1a
HKZ4-BH10-SA	15BagA	B1	9.50	1.41	1.56	Method 1a
HKZ4-BH10-SA	35BagA	B1	20.00	1.38	1.59	Method 1a
HKZ4-BH10-SA	47BagC	C2	27.75	1.23	1.66	Method 1a
HKZ4-BH10-SA	57BagB	C2	35.60	1.13	1.52	Method 1a
HKZ4-BH10-SA	58BagA	C2	36.50	1.24	1.54	Method 1a
HKZ4-BH10-SA	74BagA	D	49.00	1.35	1.61	Method 1a
HKZ4-BH10-SA	79BagA	D	57.00	1.33	1.65	Method 1a
HKZ4-BH21-SA	07BagA	B1	6.00	1.37	1.53	Method 1a
HKZ4-BH21-SA	15BagA	B1	12.00	1.42	1.63	Method 1a
HKZ4-BH21-SA	32WaxB	C1	24.35	1.33	1.61	Method 1a
HKZ4-BH21-SA	40BagA	C2	30.50	1.35	1.67	Method 1a
HKZ4-BH21-SA	51BagA	C2	42.50	1.29	1.62	Method 1a
HKZ4-BH21-SA	52BagA	C2	43.50	1.23	1.59	Method 1a
HKZ4-BH21-SA	61BagA	D	52.50	1.32	1.54	Method 1a
HKZ-A-BH01	02BagA	B1	5.50	1.49	1.62	Method 1a
HKZ-A-BH01	05BagA	C2	14.50	1.16	1.58	Method 1a
HKZ-A-BH01	14BagA	C2	38.00	1.40	1.65	Method 1a
HKZ-A-BH01	17BagA	D	46.50	1.38	1.60	Method 1a
HKZ-A-BH01	25BagA	D	67.00	1.50	1.63	Method 1a
HKZ-B-BH01	02BagA	B1	5.00	1.47	1.60	Method 1a

Borehole	Sample	Soil Unit	Depth (m BSF)	Minimum Index Dry Density (Mg/m^3)	Maximum Index Dry Density (Mg/m^3)	Method
HKZ-B-BH01	05BagA	C2	13.00	1.47	1.60	Method 1a
HKZ-B-BH01	10BagA	C2	21.50	1.48	1.62	Method 1a
HKZ-B-BH01	14BagA	C2	33.00	1.26	1.57	Method 1a
HKZ-B-BH01	24BagA	D	53.00	1.52	1.63	Method 1a