

pilepro pile wadit

1-866-666-7453

www.pileprogroup.com



iSheetPile

The Only Online Comparative Marketplace
for Sheet Pile

isheetpile.com



PilePro

The Leader in Innovative Sheet Pile Connectors
pilepro.com



OPile

The Only SSP Systems that Can Be Driven
Through Solid Rock

opile.com



WADIT

The Proven Sheet Pile Interlock Sealant
wadit.com



O-Pile®

Predictable, Quantifiable Retaining Wall Systems for All Soil Types

Please see the corresponding US patents:
US8088469, US8323765

Technical and Sales Support
8am EST to 6pm EST
Live person should answer your call

Toll Free from the US:

866.666.7453

International Callers Please Dial:

+1.512.243.1228

or please text us stating when
you would like us to call you.

Email us

info@isheetpile.com

To schedule a call

CLICK HERE 



O-Pile®

Overview

O-Pile® is a leader in predictable, quantifiable retaining wall systems that can be driven in all soil conditions. O-Pile® systems are a stronger, more efficient, durable, faster and cost-effective alternative to heavy Z-sheet pile, combined sheet pile utilizing pipes or beams, slurry, secant, continuous concrete walls and other conventional concrete constructions.

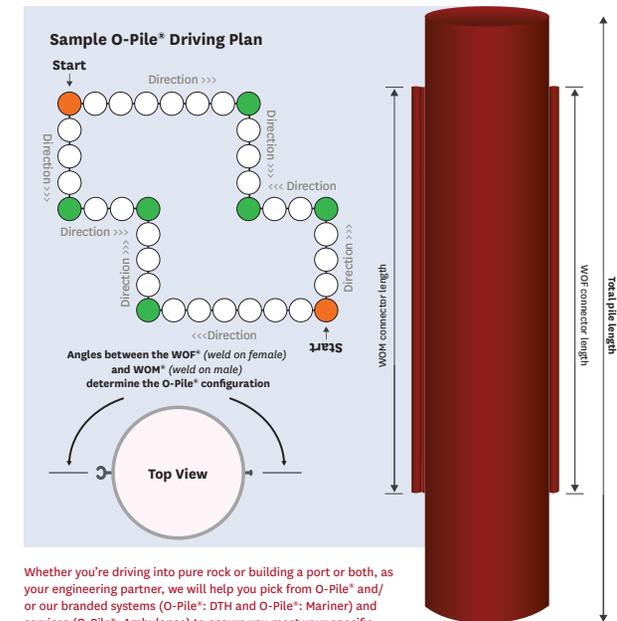
O-Pile® Attributes

1. Bending Moment Capacity (BMC) –

O-Pile® systems typically have a higher strength to weight ratio when compared to Z, U or combined sheet pile walls as they can be made using high strength coiled steel that exceeds the capabilities of hot rolled sheet pile, allowing for a much larger Bending Moment Capacity. For example O-Pile® is available in X80 to provide 80,000 yield strength, where by hot rolling sheet piling is limited to less than 65,000 and typically uses steel with a yield strength of 36,000 or 50,000. The selection of the steel grade has a marked impact on the structural resistance of the pile wall. Selecting a stronger steel grade such as X70 or X80 often allows using piles of smaller diameter or wall thickness.

2. Strong Efficient Connection –

WOM/WOF connectors have an interlock strength of 19.5 kips/inch (3418 kN/m); Figure 1 on the right clearly shows the high pull-out resistance of this connection which is over 4 times stronger than Larsen interlocking hot rolled sheet pile made in Luxembourg or China.



Whether you're driving into pure rock or building a port or both, as your engineering partner, we will help you pick from O-Pile® and/or our branded systems (O-Pile®: DTH and O-Pile®: Mariner) and services (O-Pile®: Ambulance) to ensure you meet your specific project needs.

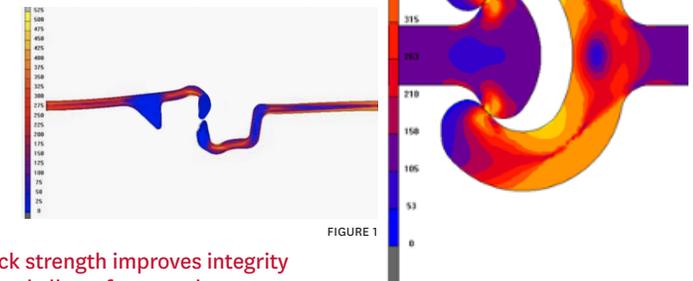


FIGURE 1

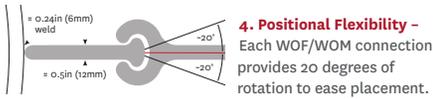
“Greater interlock strength improves integrity during driving and allows forces to be redistributed laterally along the wall.”

USACE: 2.1 Metal Sheet Piling UFGS -31 41 16 Page 13

A WOM/WOF® has a high pull out capacity of 19.5 kips/inch (3418 kN/m) compared to a Larsen 4.57 kips/inch (801 kN/m).

3. Superior Geometry for Durability – Each WOF/WOM connection provides 20 degrees of rotation to ease placement. O-Pile® has a distinct advantage over combined, Z and U sheet piles: O-Pile® saves costs with easier application of corrosion protection compared to other geometries, and by having a minimized exposed surface (See figure 2).

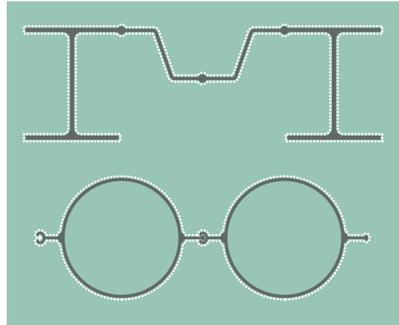
Furthermore, the interior of the pipe can be sealed off (capped or filled) from oxygen infiltration in order to avoid inside corrosion. Also, concrete can be poured inside the O-Pile® itself, thus further increasing strength while also preventing oxidization or corrosion on the interior surface, so O-Piles® have only the exterior face exposed to corrosion. This is in contrast to a beam king pile, which has all of its surface faces exposed to corrosive elements. O-Pile used in corrosive soil and/or water need only have corrosion allowance factored for the exterior surface of the pile.



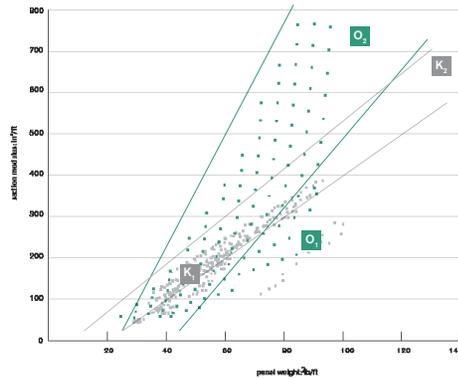
5. Unmatched Strength – O-Pile systems offer unmatched efficiency particularly where high capacity structures are involved. O-Pile systems achieve strength by increasing pipe diameter, which spreads weight gained over an increased width. This minimizes weight gain per sqft (sqm) and radically improves efficiency. This is in stark comparison to how a beam-based combi-wall system develops strength.

To illustrate this efficiency, below is a comparison of strength to weight for an O-Pile system and a King pile system.

	System	System Measurements	Strength Increase	Weight Increase
O ₁	O-Pile	762 x 25.4mm; 11,116 cm ² /m; 207 ins ² /ft; 410 kg/m ² ; 84 lbs/ft		
O ₂	O-Pile	2,134 x 25.4mm; 37,826 cm ² /m; 703 ² ins ² /ft; 464 kg/m ² ; 95 lbs/ft	X 3.4	X 1.13
K ₁	King pile beam system	8,753 cm ² /m; 163 ins ² /ft; 205 kg/m ² ; 42 lbs/ft		
K ₂	King pile beam system (1080mm beam to beam)	29,330 cm ² /m; 546 ins ² /ft; 656 kg/m ² ; 134 lbs/ft ²	X 3.3	X 3.2



Dotted white lines = exposed surface FIGURE 2



6. Load-Bearing Capacity – The surcharge and lateral load-bearing capacity of pipe sheet pile is significantly higher than standard U- or Z-type sheet piles or combined wall systems of similar weight, because of its natural geometry.

7. Superior Durability – O-Pile systems have a distinct advantage over Z,U and combined sheet piles by having a minimized exposed surface. O-Pile only have a corrosion allowance factored for the exterior surface of the pile, unlike the other systems.

8. O-Pile: Mariner = Double Pipe thickness – allows you to “dial-in” thickness to meet your specific structural load and durability needs to ensure overall safety. Thickness can be increased specifically at the splash- and low-water zones for increased durability (See Figure on the right). Additional costly measures, such as coatings, special steel grades or cathodic protection, become unnecessary. This gives the most efficient use of steel and the most cost-effective solution for durability.

O-Pile® Mariner’s double pipe thickness targets design life and the use of sacrificial thickness, exactly where you need it—the “Zone of High Attack.” With a 100’ pipe, the thickness of the upper 10’ of pipe (denoted by arrows) beats the corrosion allowance, while the bottom 90’ of the pipe is dialed-in to meet load bearing needs (See Figure 3).

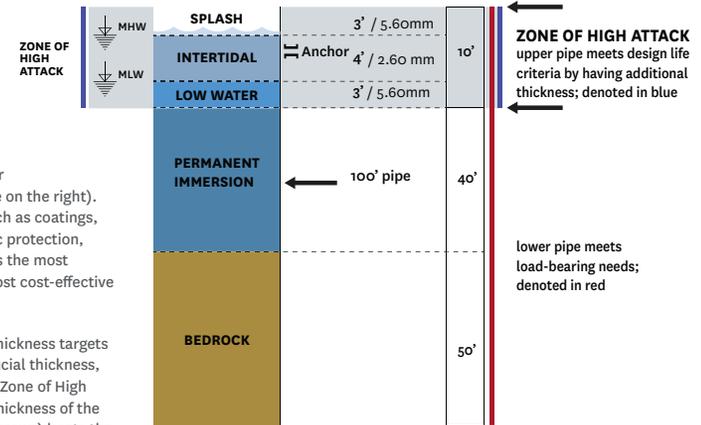
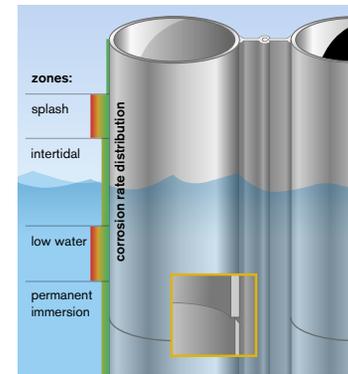


FIGURE 3



Yellow call out box shows how thickness can be “dialed in” to meet safety needs (e.g. structural load and durability).

9. Increased Savings – The increased Bending moment capabilities of O-Pile® allow the user to construct a stronger wall using much less steel, and hence at a much lower cost. O-Pile® works with our customers to ensure we meet your specific project needs. We don’t just sell you a product, we enter into a partnership that starts at the design stage and extends through implementation. Simply put, we deliver the most technically advanced and highly economical system available. Since we locally source pipes, we can always help you find the correct pile size in a broad range of steel grades, which allows you to implement a retaining wall or foundation structure with the best overall economy for all soil conditions and loading situations. O-Pile® offers a truly unmatched proven solution.

10. Ease of Installation – An O-Pile is much less challenging due to one single fact: O-Piles are supported throughout their installation, whereas combined sheet pile systems are not. Installation using WOF/WOM connections are simplified by the use of a template and panel installation method. The installation of the O-Pile section is similar to driving Z sheet pile pairs in a basic two frame template. At no stage is there a pipe pile entirely unsupported throughout its length as it is driven to grade. Each pipe is supported by adjacent pipes with a small lead ahead of the rest, ensuring accurate wall alignment.

11. O-Pile: via WADIT System = Watertight wall – WADIT, the globally proven sheet pile interlock sealant, comes pre-applied in the WOF interlock chamber before delivery to the job site. A purpose-built and globally proven sheet piling interlock sealant system, WADIT (short for WASSERDICHT, German for waterproof) is an environmentally friendly sealant that was developed to deliver robust water-stopping protection. WADIT is available for use anywhere with any type of sheet pile, including but not limited to O-Pile® and Z-Pile. The WADIT system can be utilized before driving sheet pile, in the middle interlock of already paired sheet pile and after the sheet pile has already been installed.

12. O-PILE: DTH (Down the Hole) Drilling – O-Pile®: DTH utilizes state-of-the-art DTH drilling techniques that allows its systems to be driven into any ground or rock strata at levels of productivity not achieved before. DTH drilling has been used in these challenging environments: post glacial soils of Norway, boulders of Sweden, granite of Finland, deep bed rock of Hong Kong, through heavy structure in Macau, etc. The O-Pile®: DTH Pile is installed with the centric drilling method using ring bits of a larger diameter than standard bits. The ring bit drills a hole larger than the pile to accommodate the WOF/ WOM connectors. Diameter from 16” (323mm) to 36” (914.4mm), ranging from a wide range of diameter pipe can be installed using O-Pile®: DTH. See O-Pile®: DTH Grid on page XX.

Predictable, quantifiable installation is possible even with difficult driving conditions, such as bed rock or job sites with heavy debris. Compared to driving a conventional combined sheet piles with beams or pipes, the installation using an O-Pile®: DTH system is much less challenging due to one single fact: O-Pile® systems are supported throughout their installation, whereas King pile combi-wall systems with pipes and beams are not.



Installation using flexible strong WOM/WOF connections are simplified by the use of a template and panel installation method.

The installation of O-Pile®: DTH Piles is similar to driving sheet pile pairs in a basic two frame template. At no stage is there a pipe pile entirely unsupported throughout its length as it is driven to grade. Each pipe is supported by adjacent pipes with a small lead ahead of the rest, ensuring accurate wall alignment. (See Figure 4.)

FIGURE 4
DTH-O-Pile
The Only SSP System that Can Be Driven Through Solid Rock.



Please go to the O-Pile tool at O-Pile.com to configure your specific O-Pile system, call or text us at 866.666.7453 or +1.512.243.1228 for technical assistance about the O-Pile system or how to use the tool.



When to use O-Pile®: DTH (Down the Hole)

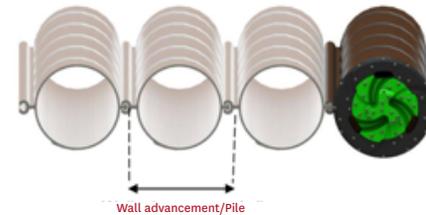
Environments and Uses. O-Pile®: DTH systems can be driven into environments where the rock strata exceeds 120 megapascals or other difficult environments at levels of productivity not achieved before by using the state-of-the-art Down-the-Hole (DTH) drilling technique.

Development of new Down The Hole (DTH) techniques, especially the introduction of new air control bits, is making DTH drilling safer and more environmentally friendly than ever before. Using DTH in urban areas and in sensitive ground is now possible; plus, there is no danger of overdrilling or air escaping, which could otherwise cause settlements to existing structures.

O-Pile® is an economical and reliable solution that suits all ground conditions. The product is on hand and ready to ship to most US destinations within two weeks to most destinations in North America.



O-Pile® template in marine environment.



Example of tunnel using O-Pile®:DTH using horizontal drilling. While vertical walls are assembled with standard DTH piling rigs, horizontal applications require special HZ rigs that can handle long element lengths as the space allows.

Please go to the O-Pile tool at O-Pile.com to configure your specific O-Pile system, call or text us at 866.666.7453 or +1.512.243.1228 for technical assistance about the O-Pile system or how to use the tool.

Frequently Asked Questions for O-Pile®

Can you install on O-Pile system in solid rock?

Yes, using the O-Pile “DTH Down the Hole” system. Click here for presentation.

What is an O-Pile system?

An O-shaped sheet pile is a pipe section with attached connector sections so that one section can be driven into the next to form a continuous steel wall with the same load bearing element.

The connector sections are connected together through an interlocking system. Eurocode 3 BS EN 1993-1995: 2007 Section 1.8.12 defines interlock as: The portion of a steel sheet pile or other sheeting that connects adjacent elements by means of a thumb and finger or similar configuration to make a continuous wall.



Picture illustrates the superior template and panel installation method that O-Pile systems utilize.

According to BS EN 10248-2 (European version of ASTM), “Interlocks shall have adequate free play, so that the piles can be fitted into each other and they must engage in such a manner that the in service forces can be transmitted.” For non-flat sheet piling such as the interlock connecting system in contiguous o-sheet piling, BS EN 10248-2 also allows for a 4 mm minimum engagement distance in the interlocks in order to effectively transfer forces.

It is important to note that hot rolled sheet piling has this minimum engagement distance of 4 mm while cold formed does not necessarily. This is why cold formed does not always transfer shear forces as effectively as hot rolled sheet piling.

US Army Corps of Engineers Unified Facilities Guide Specifications Document UFGS-31 41 16 page 13 notes: “interlock connections between hot rolled sheets provide much greater strength than cold formed connections. Greater interlock strength improves integrity during driving and allows forces to be redistributed laterally along the wall at changes in wall alignment...”

Why use an O-Pile sheet pile system?

Because we can take readily available pipes and begin a project to meet/exceed virtually any steel sheet piling requirements and begin delivery a ready to install system in days versus months.

How are z sheet pile and the O-Pile system similar?

They are both contiguous walls and hence much easier to install than a combined sheet pile wall.

Can you build an O-Pile wall with grade 80 or higher steel?

Yes, unlike hot rolled or cold rolled sheet pile systems that are limited to about grade 65 and most often produced with grade 50 steel, Pipes can be produced in higher grade of steel there-by giving the user is much higher bending moment per pound of steel.

What is bending moment important?

The best method for comparing SSP is via bending moment capacity, which incorporates the strength of the section due to its geometry (section modulus) and takes into account the steel grade: Bending moment capacity = elastic section modulus $[m^3/m] \times$ minimum yield strength $[kN/m^2]$ (without safety factor) The BMC of a sheet pile section with a section modulus of $4019 \text{ cm}^3/m$ in a Steel Grade of S 355 is: $1427 \text{ (kNm/m)} = 4.019 \text{ (m}^3/m) \times 355 \text{ (N/mm}^2)$ The BMC of a sheet pile section with a section modulus of $2290 \text{ cm}^3/m$ in a Steel Grade of X70 is: $1111 \text{ (kNm/m)} = 2.290 \text{ (m}^3/m) \times 485 \text{ (N/mm}^2)$ Decades ago, when there was predominantly only one steel grade, engineers used section modulus as the main design criteria. But now that many steel grades are available and production technology has evolved, we will likely see more and more higher grade steel options in the future. A higher grade of steel results in a stronger wall for less weight; thus, the best measure of strength to compare SSP systems is bending moment capacity, which incorporates section modulus and steel grade into one number independent of

lifespan or safety factor. Incidentally, moment of inertia has no relationship to bending moment and is not typically a stand-alone criteria. Certain steel companies have pushed for moment of inertia to be placed as part of a primary specification and have, as a result, confused the term with the vital bending moment.

Where has the O-Pile system been used?

US, Canada, Japan, Russia, Ukraine, Norway, Finland, Sweden, Philippines and many other places.

Has the US Navy build an O-Pile system?

Yes.

When should I consider using an O-Pile system?

- When you need a sheet pile section that is stronger than a Z 40 level under normal soil conditions.
- When you need to install a wall into rock or boulders and you can not install a z sheet pile, please see the full details of how this is done by clicking here: www.o-pile.com/s/dth



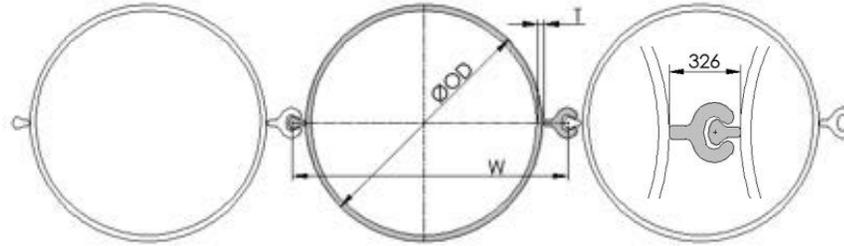
- When you have heavy loads where by filling the O-Pile with sand or cement increase the utility of the sheet pile system.
- For temporary applications, as you can reuse the O-Pile system easily.
- When you would like a sea wall to last a long time and be cost effective. You can make an O-Pile thickening in the zone of high attack the top section of the pile and also eliminate the need to coat the steel.





Data Sheet

**Predictable, Quantifiable
Retaining Wall Systems for All
Soil Types**



O-Pile 51 - 1088	
KEY:	(51 = Section Modulus)
	(1088 = System Width)

O-Pile® systems are available for immediate shipment, these are examples from an endless variety of possible O-Pile®, please configure your own system on O-Pile.com.

* The average weight (per square unit of wall) is usually the most relevant calculation for comparing piling solution costs of the acceptable bending moment, assuming equal or greater minimum thickness of the sheet pile section.

SECTION	Diameter OD	Thickness Wall T	System Width W	UNIT OF WALL						BENDING MOMENT/MEL					
				Section Modulus	Interlock Strength	Moment of Inertia	Weight- Connector Ratio *			50	60	65	X70	X80	Mariner® Steel ASTM A690
							50%	75%	100%						
mm	mm	mm	cm ³ /m	kN/m	cm ⁴ /m	kg/m ²	kg/m ²	kg/m ²	kN-m/m	kN-m/m	kN-m/m	kN-m/m	kN-m/m	kN-m/m	
O-Pile 22-834	508	9.52	834	2187.8	3413.3	55570.9	165.7	178.4	191.1	754.2	905.1	980.5	1050.2	1214.2	754.2
O-Pile 23-834	508	10	834	2290.5	3413.3	58177.8	172.7	185.3	198.0	789.6	947.5	1026.5	1099.4	1271.2	789.6
O-Pile 26-834	508	11.11	834	2528.5	3413.3	64223.9	188.6	201.3	214.0	871.7	1046	1133.2	1213.7	1403.3	871.7
O-Pile 28-834	508	12	834	2716.1	3413.3	68988.1	201.4	214.1	226.8	936.3	1123.6	1217.2	1303.7	1507.4	936.3
O-Pile 29-936	609.6	9.52	935.6	2835	3413.3	86409.4	173.2	184.5	195.9	977.3	1172.8	1270.5	1360.8	1573.4	977.3
O-Pile 29-834	508	12.7	834	2862.6	3413.3	72709	211.4	224.1	236.8	986.8	1184.2	1282.9	1374	1588.7	986.8
O-Pile 30-936	609.6	10	935.6	2969.3	3413.3	90505.6	180.7	192.0	203.3	1023.6	1228.4	1330.7	1425.3	1648	1023.6
O-Pile 32-834	508	14.29	834	3190.1	3413.3	81028.2	234.0	246.7	259.4	1099.7	1319.7	1429.7	1531.2	1770.5	1099.7
O-Pile 33-936	609.6	11.11	935.6	3281.6	3413.3	100022.2	197.9	209.2	220.5	1131.3	1357.5	1470.7	1575.2	1821.3	1131.3
O-Pile 36-1037	711.2	9.52	1037.2	3504.2	3413.3	124609.5	179.2	189.5	199.7	1208	1449.6	1570.4	1682	1944.8	1208
O-Pile 36-834	508	15.88	834	3511.2	3413.3	89183.7	256.5	269.2	281.9	1210.4	1452.5	1573.6	1685.4	1948.7	1210.4
O-Pile 36-936	609.6	12	935.6	3528.1	3413.3	107537.4	211.7	223.0	234.3	1216.3	1459.5	1581.2	1693.5	1958.1	1216.3
O-Pile 37-1037	711.2	10	1037.2	3671.5	3413.3	130560.2	187.1	197.3	207.6	1265.7	1518.9	1645.4	1762.3	2037.7	1265.7
O-Pile 38-936	609.6	12.7	935.6	3721	3413.3	113416	222.5	233.8	245.1	1282.8	1539.3	1667.6	1786.1	2065.2	1282.8
O-Pile 39-1088	762	9.52	1088	3845.2	3413.3	146501.8	181.8	191.6	201.3	1325.6	1590.7	1723.3	1845.7	2134.1	1325.6
O-Pile 41-1088	762	10	1088	4029.4	3413.3	153518.4	189.9	199.7	209.4	1389.1	1666.9	1805.8	1934.1	2236.3	1389.1
O-Pile 41-1037	711.2	11.11	1037.2	4060.8	3413.3	144403.2	205.4	215.6	225.8	1399.9	1679.9	1819.9	1949.2	2253.8	1399.9
O-Pile 42-834	508	19.05	834	4134.3	3413.3	105012.5	300.8	313.5	326.2	1425.3	1710.3	1852.8	1984.5	2294.6	1425.3
O-Pile 42-936	609.6	14.29	935.6	4153.3	3413.3	126593.6	246.9	258.2	269.5	1431.8	1718.2	1861.4	1993.6	2305.1	1431.8
O-Pile 42-1139	812.8	9.52	1138.8	4189.6	3413.3	170266.9	184.2	193.5	202.8	1444.3	1733.2	1877.6	2011	2325.2	1444.3
O-Pile 44-1037	711.2	12	1037.2	4368.7	3413.3	155350	219.9	230.1	240.3	1506	1807.3	1957.9	2097	2424.6	1506
O-Pile 44-1139	812.8	10	1138.8	4390.8	3413.3	178444	192.4	201.7	211.0	1513.7	1816.4	1967.8	2107.6	2436.9	1513.7
O-Pile 45-1088	762	11.11	1088	4458	3413.3	169849.3	208.6	218.3	228.0	1536.8	1844.2	1997.9	2139.8	2474.2	1536.8
O-Pile 46-1190	863.6	9.52	1189.6	4537.2	3413.3	195914.6	186.4	195.3	204.2	1564.1	1877	2033.4	2177.8	2518.1	1564.1
O-Pile 46-936	609.6	15.88	935.6	4578.6	3413.3	139556.4	271.2	282.5	293.8	1578.4	1894.1	2052	2197.7	2541.1	1578.4
O-Pile 47-1037	711.2	12.7	1037.2	4609.8	3413.3	163924	231.3	241.6	251.8	1589.2	1907	2065.9	2212.7	2558.4	1589.2

O-Pile 48-1190	863.6	10	1189.6	4755.5	3413.3	205343.8	194.8	203.7	212.6	1639.4	1967.3	2131.2	2282.7	2639.3	1639.4
O-Pile 48-885	558.8	19.05	884.8	4764.3	3413.3	133115.4	310.5	322.5	334.5	1642.4	1970.9	2135.2	2286.9	2644.2	1642.4
O-Pile 48-1088	762	12	1088	4797.1	3413.3	182771.1	223.5	233.2	242.9	1653.8	1984.5	2149.9	2302.6	2662.4	1653.8
O-Pile 49-1139	812.8	11.11	1138.8	4859.2	3413.3	197479.8	211.5	220.8	230.1	1675.2	2010.2	2177.7	2332.4	2696.9	1675.2
O-Pile 49-1240	914.4	9.52	1240.4	4887.3	3413.3	223448.1	188.3	196.9	205.4	1684.8	2021.8	2190.3	2345.9	2712.5	1684.8
O-Pile 50-936	609.6	17.46	935.6	4997	3413.3	152307.6	295.2	306.5	317.8	1722.6	2067.2	2239.4	2398.5	2773.3	1722.6
O-Pile 51-1088	762	12.7	1088	5062.9	3413.3	192897.1	235.2	244.9	254.6	1745.4	2094.5	2269	2430.2	2809.9	1745.4
O-Pile 52-1240	914.4	10	1240.4	5123	3413.3	234224.4	196.9	205.4	214.0	1766.1	2119.3	2295.9	2459	2843.3	1766.1
O-Pile 52-1037	711.2	14.29	1037.2	5151.2	3413.3	183176.8	257.2	267.4	277.6	1775.8	2131	2308.6	2472.6	2858.9	1775.8
O-Pile 53-1139	812.8	12	1138.8	5230.1	3413.3	212550.9	226.7	236.0	245.3	1803	2163.6	2343.9	2510.4	2902.7	1803
O-Pile 53-1291	965.2	9.52	1291.2	5239.8	3413.3	252874.8	190.2	198.4	206.6	1806.4	2167.6	2348.3	2515.1	2908.1	1806.4
O-Pile 53-1190	863.6	11.11	1189.6	5264.1	3413.3	227305	214.1	223.0	231.9	1814.7	2177.7	2359.2	2526.8	2921.6	1814.7
O-Pile 55-936	609.6	19.05	935.6	5408.4	3413.3	164849.3	319.2	330.5	341.8	1864.5	2237.4	2423.8	2596.1	3001.7	1864.5
O-Pile 55-1291	965.2	10	1291.2	5493	3413.3	265092.2	198.8	207.0	215.2	1893.6	2272.4	2461.7	2636.6	3048.6	1893.6
O-Pile 56-1139	812.8	12.7	1138.8	5520.8	3413.3	224366.9	238.6	247.9	257.2	1903.2	2283.9	2474.2	2650	3064.1	1903.2
O-Pile 56-1342	1016	9.52	1342	5594.4	3413.3	284197.5	191.9	199.7	207.6	1928.6	2314.3	2507.2	2685.3	3104.9	1928.6
O-Pile 57-1088	762	14.29	1088	5660.1	3413.3	215649.8	261.7	271.4	281.1	1951.3	2341.5	2536.6	2716.8	3141.4	1951.3
O-Pile 57-1190	863.6	12	1189.6	5667	3413.3	244699.9	229.7	238.6	247.5	1953.6	2344.3	2539.7	2720.1	3145.2	1953.6
O-Pile 57-1240	914.4	11.11	1240.4	5672.2	3413.3	259330.9	216.6	225.1	233.7	1955.4	2346.5	2542	2722.6	3148	1955.4
O-Pile 57-1037	711.2	15.88	1037.2	5685.1	3413.3	202162.6	283.0	293.2	303.4	1959.9	2351.8	2547.8	2728.9	3155.2	1959.9
O-Pile 59-936	609.6	20.64	935.6	5813.1	3413.3	177183.6	343.1	354.4	365.7	2004	2404.8	2605.2	2790.3	3226.3	2004
O-Pile 59-1342	1016	10	1342	5865.2	3413.3	297950.8	200.6	208.5	216.4	2021.9	2426.3	2628.5	2815.3	3255.2	2021.9
O-Pile 60-1393	1066.8	9.52	1392.8	5950.9	3413.3	317421	193.4	201.0	208.6	2051.5	2461.8	2666.9	2856.4	3302.7	2051.5
O-Pile 60-1190	863.6	12.7	1189.6	5982.9	3413.3	258342.3	241.8	250.7	259.6	2062.5	2475	2681.3	2871.8	3320.5	2062.5
O-Pile 61-1291	965.2	11.11	1291.2	6083	3413.3	293563.4	218.9	227.1	235.3	2097	2516.4	2726.1	2919.8	3376	2097
O-Pile 62-1240	914.4	12	1240.4	6107.3	3413.3	279224.4	232.4	240.9	249.4	2105.4	2526.5	2737	2931.5	3389.5	2105.4
O-Pile 62-1139	812.8	14.29	1138.8	6174.5	3413.3	250929.9	265.7	275.0	284.3	2128.6	2554.3	2767.1	2963.7	3426.8	2128.6
O-Pile 63-936	609.6	22.22	935.6	6211	3413.3	189312.7	366.7	378.0	389.3	2141.2	2569.4	2783.5	2981.3	3447.1	2141.2
O-Pile 63-1037	711.2	17.46	1037.2	6211.6	3413.3	220884.1	308.4	318.6	328.8	2141.4	2569.6	2783.8	2981.6	3447.4	2141.4
O-Pile 63-1393	1066.8	10	1392.8	6239.3	3413.3	332803.7	202.3	209.9	217.5	2150.9	2581.1	2796.2	2994.9	3462.8	2150.9
O-Pile 63-1088	762	15.88	1088	6249.6	3413.3	238109.4	288.0	297.8	307.5	2154.5	2585.4	2800.8	2999.8	3468.5	2154.5
O-Pile 64-1444	1117.6	9.52	1443.6	6309	3413.3	352547.1	194.9	202.2	209.5	2175	2609.9	2827.4	3028.3	3501.5	2175
O-Pile 65-948	622.3	22.22	948.3	6400.3	3413.3	199144.3	369.1	380.3	391.4	2206.4	2647.7	2868.3	3072.1	3552.1	2206.4
O-Pile 65-1240	914.4	12.7	1240.4	6448.6	3413.3	294831.5	244.8	253.3	261.8	2223.1	2667.7	2890	3095.3	3579	2223.1
O-Pile 65-1342	1016	11.11	1342	6496.2	3413.3	330008.2	220.9	228.8	236.7	2239.5	2687.4	2911.3	3118.2	3605.4	2239.5
O-Pile 66-1291	965.2	12	1291.2	6550.6	3413.3	316132.3	234.9	243.1	251.3	2258.2	2709.9	2935.7	3144.3	3635.6	2258.2
O-Pile 67-936	609.6	23.81	935.6	6602.3	3413.3	201238.8	390.3	401.6	412.9	2276.1	2731.3	2958.9	3169.1	3664.3	2276.1
O-Pile 67-1444	1117.6	10	1443.6	6615.2	3413.3	369655.7	203.9	211.2	218.6	2280.5	2736.6	2964.6	3175.3	3671.4	2280.5
O-Pile 67-1190	863.6	14.29	1189.6	6693.6	3413.3	289028.2	269.4	278.3	287.2	2307.5	2769	2999.8	3212.9	3714.9	2307.5
O-Pile 68-1037	711.2	19.05	1037.2	6730.7	3413.3	239343.4	333.9	344.1	354.3	2320.3	2784.4	3016.4	3230.7	3735.5	2320.3
O-Pile 69-1139	812.8	15.88	1138.8	6820.2	3413.3	277173.3	292.7	301.9	311.2	2351.2	2821.4	3056.5	3273.7	3785.2	2351.2

O-Pile 69-1088	762	17.46	1088	6831.4	3413.3	260277.6	314.1	323.9	333.6	2355.1	2826.1	3061.6	3279.1	3791.4	2355.1
O-Pile 70-1393	1066.8	11.11	1392.8	6911.7	3413.3	368669.6	222.9	230.5	238.1	2382.7	2859.3	3097.5	3317.6	3836	2382.7
O-Pile 70-1291	965.2	12.7	1291.2	6917.6	3413.3	333842.9	247.4	255.6	263.8	2384.8	2861.7	3100.2	3320.4	3839.3	2384.8
O-Pile 70-936	609.6	25.4	935.6	6987	3413.3	212964.9	413.8	425.1	436.4	2408.7	2890.4	3131.3	3353.8	3877.8	2408.7
O-Pile 70-1342	1016	12	1342	6996.6	3413.3	355428.5	237.2	245.1	253.0	2412	2894.4	3135.6	3358.4	3883.1	2412
O-Pile 71-1545	1219.2	9.52	1545.2	7029.6	3413.3	428521.9	197.5	204.4	211.2	2423.4	2908	3150.4	3374.2	3901.4	2423.4
O-Pile 73-1240	914.4	14.29	1240.4	7216.9	3413.3	329954.9	272.8	281.3	289.9	2487.9	2985.5	3234.3	3464.1	4005.4	2487.9
O-Pile 73-1037	711.2	20.64	1037.2	7242.5	3413.3	257543.4	359.3	369.5	379.7	2496.8	2996.1	3245.8	3476.4	4019.6	2496.8
O-Pile 74-1444	1117.6	11.11	1443.6	7329.1	3413.3	409551.1	224.7	232.0	239.3	2526.6	3031.9	3284.6	3518	4067.7	2526.6
O-Pile 74-1545	1219.2	10	1545.2	7371.5	3413.3	449365.1	206.7	213.5	220.4	2541.2	3049.5	3303.6	3538.3	4091.2	2541.2
O-Pile 74-1342	1016	12.7	1342	7389.4	3413.3	375381.5	249.9	257.8	265.7	2547.4	3056.9	3311.6	3546.9	4101.1	2547.4
O-Pile 74-1596	1270	9.52	1596	7391.7	3413.3	469374.7	198.7	205.3	212.0	2548.2	3057.8	3312.7	3548	4102.4	2548.2
O-Pile 74-1190	863.6	15.88	1189.6	7396.2	3413.3	319367	296.9	305.8	314.7	2549.7	3059.7	3314.7	3550.2	4104.9	2549.7
O-Pile 75-1088	762	19.05	1088	7405.7	3413.3	282156.2	340.3	350.0	359.7	2553	3063.6	3318.9	3554.7	4110.2	2553
O-Pile 75-1393	1066.8	12	1392.8	7445	3413.3	397117.3	239.3	246.9	254.5	2566.6	3079.9	3336.6	3573.6	4132	2566.6
O-Pile 75-1139	812.8	17.46	1138.8	7458.1	3413.3	303098	319.3	328.6	337.9	2571.1	3085.3	3342.4	3579.9	4139.3	2571.1
O-Pile 78-1291	965.2	14.29	1291.2	7743.8	3413.3	373716.7	275.9	284.1	292.3	2669.6	3203.5	3470.5	3717	4297.8	2669.6
O-Pile 78-1037	711.2	22.22	1037.2	7747.1	3413.3	275486.9	384.4	394.6	404.8	2670.7	3204.9	3471.9	3718.6	4299.6	2670.7
O-Pile 78-1596	1270	10	1596	7751.6	3413.3	492227.4	208.0	214.6	221.2	2672.3	3206.7	3474	3720.8	4302.1	2672.3
O-Pile 78-1647	1320.8	9.52	1646.8	7755	3413.3	512139.3	199.8	206.2	212.7	2673.4	3208.1	3475.5	3722.4	4304	2673.4
O-Pile 79-1393	1066.8	12.7	1392.8	7863.8	3413.3	419452.9	252.2	259.8	267.4	2710.9	3253.1	3524.2	3774.6	4364.4	2710.9
O-Pile 79-1444	1117.6	12	1443.6	7895.6	3413.3	441203.9	241.3	248.7	256.0	2721.9	3266.3	3538.5	3789.9	4382	2721.9
O-Pile 80-1088	762	20.64	1088	7972.4	3413.3	303750	366.3	376.0	385.8	2748.4	3298.1	3572.9	3826.8	4424.7	2748.4
O-Pile 80-1240	914.4	15.88	1240.4	7976.9	3413.3	364701.7	300.8	309.3	317.8	2749.9	3299.9	3574.9	3828.9	4427.2	2749.9
O-Pile 81-1139	812.8	19.05	1138.8	8088.3	3413.3	328706.5	346.0	355.3	364.6	2788.3	3346	3624.8	3882.4	4489	2788.3
O-Pile 81-1190	863.6	17.46	1189.6	8090.8	3413.3	349360.3	324.1	333.0	341.9	2789.2	3347	3626	3883.6	4490.4	2789.2
O-Pile 82-1698	1371.6	9.52	1697.6	8119.3	3413.3	556818.4	200.8	207.1	213.3	2799	3358.8	3638.7	3897.2	4506.2	2799
O-Pile 82-1647	1320.8	10	1646.8	8132.9	3413.3	537098	209.2	215.6	222.0	2803.7	3364.5	3644.8	3903.8	4513.8	2803.7
O-Pile 82-1545	1219.2	11.11	1545.2	8169.1	3413.3	497988	227.9	234.8	241.6	2816.2	3379.4	3661.1	3921.2	4533.8	2816.2
O-Pile 83-1037	711.2	23.81	1037.2	8244.5	3413.3	293175.9	409.6	419.8	430.0	2842.2	3410.6	3694.9	3957.4	4575.7	2842.2
O-Pile 83-1342	1016	14.29	1342	8274	3413.3	420321.2	278.8	286.7	294.6	2852.4	3422.8	3708.1	3971.5	4592.1	2852.4
O-Pile 84-1444	1117.6	12.7	1443.6	8340.4	3413.3	466061.2	254.4	261.7	269.1	2875.3	3450.3	3737.8	4003.4	4628.9	2875.3
O-Pile 85-1748	1422.4	9.52	1748.4	8484.5	3413.3	603414.6	201.8	207.9	213.9	2924.9	3509.9	3802.4	4072.5	4708.9	2924.9
O-Pile 86-1698	1371.6	10	1697.6	8515.3	3413.3	583978	210.3	216.5	222.8	2935.5	3522.6	3816.2	4087.3	4726	2935.5
O-Pile 86-1088	762	22.22	1088	8531.8	3413.3	325059.7	392.1	401.8	411.5	2941.2	3529.5	3823.6	4095.2	4735.1	2941.2
O-Pile 86-1291	965.2	15.88	1291.2	8561.7	3413.3	413187	304.3	312.5	320.7	2951.5	3541.8	3837	4109.6	4751.7	2951.5
O-Pile 86-1596	1270	11.11	1596	8591.3	3413.3	545548.2	229.4	236.0	242.7	2961.8	3554.1	3850.3	4123.8	4768.2	2961.8
O-Pile 88-1139	812.8	20.64	1138.8	8710.7	3413.3	354003.3	372.7	382.0	391.3	3002.9	3603.5	3903.8	4181.1	4834.4	3002.9
O-Pile 88-1240	914.4	17.46	1240.4	8728.7	3413.3	399076.1	328.4	337.0	345.5	3009.1	3610.9	3911.8	4189.8	4844.4	3009.1
O-Pile 88-1037	711.2	25.4	1037.2	8734.9	3413.3	310612.2	434.6	444.8	455.0	3011.2	3613.5	3914.6	4192.7	4847.9	3011.2
O-Pile 88-1190	863.6	19.05	1189.6	8777.5	3413.3	379010.6	351.3	360.2	369.1	3025.9	3631.1	3933.7	4213.2	4871.5	3025.9

O-Pile 89-1545	1219.2	12	1545.2	8802.2	3413.3	536583	244.9	251.8	258.6	3034.5	3641.3	3944.8	4225.1	4885.2	3034.5
O-Pile 89-1393	1066.8	14.29	1392.8	8807.2	3413.3	469774.6	281.5	289.1	296.7	3036.2	3643.4	3947	4227.4	4888	3036.2
O-Pile 89-1748	1422.4	10	1748.4	8898.6	3413.3	632870.1	211.3	217.4	223.4	3067.7	3681.2	3988	4271.3	4938.7	3067.7
O-Pile 91-1647	1320.8	11.11	1646.8	9014.8	3413.3	595340.1	230.8	237.2	243.6	3107.8	3729.3	4040.1	4327.1	5003.2	3107.8
O-Pile 91-1088	762	23.81	1088	9083.7	3413.3	346089.2	417.9	427.6	437.3	3131.5	3757.8	4070.9	4360.2	5041.5	3131.5
O-Pile 92-1342	1016	15.88	1342	9150.2	3413.3	464829.4	307.6	315.5	323.4	3154.4	3785.3	4100.7	4392.1	5078.4	3154.4
O-Pile 93-1850	1524	9.52	1850	9217.3	3413.3	702356.8	203.6	209.4	215.1	3177.5	3813.1	4130.8	4424.3	5115.6	3177.5
O-Pile 93-1596	1270	12	1596	9258	3413.3	587881.6	246.5	253.2	259.8	3191.6	3829.9	4149	4443.8	5138.2	3191.6
O-Pile 93-1545	1219.2	12.7	1545.2	9299.6	3413.3	566903.3	258.3	265.1	272.0	3205.9	3847.1	4167.7	4463.8	5161.3	3205.9
O-Pile 94-1139	812.8	22.22	1138.8	9325.5	3413.3	378989.3	399.0	408.3	417.6	3214.9	3857.8	4179.3	4476.3	5175.7	3214.9
O-Pile 94-1444	1117.6	14.29	1443.6	9342.9	3413.3	522080.9	284.0	291.3	298.7	3220.9	3865	4187.1	4484.6	5185.3	3220.9
O-Pile 94-1291	965.2	17.46	1291.2	9371.2	3413.3	452256	332.5	340.7	348.9	3230.6	3876.7	4199.8	4498.2	5201	3230.6
O-Pile 95-1698	1371.6	11.11	1697.6	9439.6	3413.3	647366.9	232.1	238.3	244.5	3254.2	3905	4230.4	4531	5239	3254.2
O-Pile 95-1190	863.6	20.64	1189.6	9456.2	3413.3	408320.4	378.5	387.4	396.3	3259.9	3911.9	4237.9	4539	5248.2	3259.9
O-Pile 95-1240	914.4	19.05	1240.4	9472.4	3413.3	433079.7	356.2	364.7	373.3	3265.5	3918.6	4245.2	4546.8	5257.2	3265.5
O-Pile 96-1901	1574.8	9.52	1900.8	9584.8	3413.3	754703.3	204.5	210.0	215.6	3304.2	3965.1	4295.5	4600.7	5319.5	3304.2
O-Pile 97-1088	762	25.4	1088	9628.3	3413.3	366839.2	443.6	453.3	463.0	3319.2	3983.1	4315	4621.6	5343.7	3319.2
O-Pile 97-1850	1524	10	1850	9667.9	3413.3	736691.9	213.3	219.0	224.7	3332.9	3999.5	4332.7	4640.6	5365.7	3332.9
O-Pile 98-1647	1320.8	12	1646.8	9715.2	3413.3	641589.7	248.1	254.5	260.9	3349.2	4019	4353.9	4663.3	5391.9	3349.2
O-Pile 98-1393	1066.8	15.88	1392.8	9742	3413.3	519636	310.7	318.3	325.9	3358.4	4030.1	4365.9	4676.1	5406.8	3358.4
O-Pile 98-1596	1270	12.7	1596	9781.8	3413.3	621143.5	260.0	266.6	273.3	3372.2	4046.6	4383.8	4695.3	5428.9	3372.2
O-Pile 99-1748	1422.4	11.11	1748.4	9865.4	3413.3	701624.3	233.3	239.3	245.4	3401	4081.2	4421.2	4735.4	5475.3	3401
O-Pile 100-1139	812.8	23.81	1138.8	9932.8	3413.3	403667	425.4	434.7	444.0	3424.2	4109	4451.5	4767.7	5512.7	3424.2
O-Pile 101-1342	1016	17.46	1342	10017.9	3413.3	508908.3	336.2	344.1	351.9	3453.5	4144.2	4489.6	4808.6	5559.9	3453.5
O-Pile 101-1901	1574.8	10	1900.8	10053.6	3413.3	791619.3	214.2	219.7	225.3	3465.9	4159	4505.6	4825.7	5579.7	3465.9
O-Pile 102-1190	863.6	22.22	1189.6	10127.2	3413.3	437293.2	405.4	414.3	423.2	3491.2	4189.5	4538.6	4861.1	5620.6	3491.2
O-Pile 102-1291	965.2	19.05	1291.2	10172.6	3413.3	490927.8	360.7	368.9	377.1	3506.9	4208.2	4558.9	4882.8	5645.8	3506.9
O-Pile 102-1698	1371.6	12	1697.6	10173.6	3413.3	697708.5	249.5	255.7	262.0	3507.2	4208.7	4559.4	4883.3	5646.4	3507.2
O-Pile 103-1240	914.4	20.64	1240.4	10208.1	3413.3	466716.4	383.8	392.4	400.9	3519.1	4223	4574.9	4899.9	5665.5	3519.1
O-Pile 103-1647	1320.8	12.7	1646.8	10265.5	3413.3	677933	261.6	268.1	274.5	3538.9	4246.7	4600.6	4927.4	5697.3	3538.9
O-Pile 104-1202	876.3	22.22	1202.3	10328.8	3413.3	452554.4	406.9	415.7	424.5	3560.7	4272.9	4628.9	4957.8	5732.5	3560.7
O-Pile 104-1444	1117.6	15.88	1443.6	10336.7	3413.3	577612.2	313.5	320.9	328.2	3563.4	4276.1	4632.5	4961.6	5736.8	3563.4
O-Pile 105-1545	1219.2	14.29	1545.2	10421.1	3413.3	635271.2	288.5	295.4	302.2	3592.6	4311.1	4670.3	5002.1	5783.7	3592.6
O-Pile 106-1139	812.8	25.4	1138.8	10532.5	3413.3	428040	451.7	461.0	470.3	3630.9	4357.1	4720.2	5055.6	5845.5	3630.9
O-Pile 107-1748	1422.4	12	1748.4	10633.3	3413.3	756240	250.8	256.9	263.0	3665.7	4398.8	4765.4	5104	5901.5	3665.7
O-Pile 107-1393	1066.8	17.46	1392.8	10668.2	3413.3	569040.8	339.6	347.2	354.8	3677.7	4413.3	4781	5120.7	5920.8	3677.7
O-Pile 108-1850	1524	11.11	1850	10719.9	3413.3	816854.1	235.5	241.2	247.0	3695.5	4434.6	4804.2	5145.5	5949.5	3695.5
O-Pile 108-1698	1371.6	12.7	1697.6	10750.6	3413.3	737276.2	263.2	269.4	275.7	3706.1	4447.4	4818	5160.3	5966.6	3706.1
O-Pile 108-1190	863.6	23.81	1189.6	10790.4	3413.3	465930.6	432.3	441.2	450.1	3719.9	4463.8	4835.8	5179.4	5988.7	3719.9
O-Pile 109-1342	1016	19.05	1342	10877.2	3413.3	552561.8	364.8	372.7	380.6	3749.8	4499.7	4874.7	5221.1	6036.8	3749.8
O-Pile 110-1240	914.4	22.22	1240.4	10935.9	3413.3	499987.9	411.2	419.8	428.3	3770	4524	4901	5249.2	6069.4	3770

O-Pile 110-1596	1270	14.29	1596	10963.1	3413.3	696159.1	290.5	297.2	303.8	3779.4	4535.3	4913.2	5262.3	6084.5	3779.4
O-Pile 110-1291	965.2	20.64	1291.2	10965.7	3413.3	529203.8	388.8	397.0	405.2	3780.3	4536.3	4914.4	5263.5	6086	3780.3
O-Pile 112-1901	1574.8	11.11	1900.8	11148.4	3413.3	877825.1	236.5	242.1	247.7	3843.3	4611.9	4996.3	5351.2	6187.4	3843.3
O-Pile 113-1748	1422.4	12.7	1748.4	11236.9	3413.3	799170.7	264.6	270.7	276.8	3873.8	4648.6	5035.9	5393.7	6236.5	3873.8
O-Pile 114-1444	1117.6	17.46	1443.6	11321.7	3413.3	632659.3	342.8	350.1	357.5	3903	4683.6	5073.9	5434.4	6283.6	3903
O-Pile 115-2155	1828.8	9.52	2154.8	11431.1	3413.3	1045261.7	208.0	213.0	217.9	3940.7	4728.9	5123	5486.9	6344.3	3940.7
O-Pile 115-1190	863.6	25.4	1189.6	11445.9	3413.3	494235.9	459.2	468.1	477.0	3945.9	4735	5129.6	5494.1	6352.5	3945.9
O-Pile 116-1647	1320.8	14.29	1646.8	11507	3413.3	759922.3	292.5	298.9	305.3	3966.9	4760.3	5157	5523.4	6386.4	3966.9
O-Pile 116-1545	1219.2	15.88	1545.2	11533.7	3413.3	703093.5	318.7	325.5	332.4	3976.1	4771.3	5168.9	5536.2	6401.2	3976.1
O-Pile 116-1850	1524	12	1850	11555.7	3413.3	880545.9	253.3	259.0	264.8	3983.7	4780.4	5178.8	5546.7	6413.4	3983.7
O-Pile 116-1393	1066.8	19.05	1392.8	11585.9	3413.3	617991.8	368.6	376.2	383.8	3994.1	4792.9	5192.3	5561.2	6430.2	3994.1
O-Pile 117-1240	914.4	23.81	1240.4	11655.7	3413.3	532896.6	438.7	447.2	455.7	4018.1	4821.8	5223.6	5594.7	6468.9	4018.1
O-Pile 118-1342	1016	20.64	1342	11728.2	3413.3	595792.1	393.3	401.2	409.1	4043.2	4851.8	5256.1	5629.5	6509.1	4043.2
O-Pile 118-1291	965.2	22.22	1291.2	11750.7	3413.3	567087.2	416.6	424.8	433.0	4050.9	4861.1	5266.2	5640.3	6521.6	4050.9
O-Pile 120-2155	1828.8	10	2154.8	11991.8	3413.3	1096528.7	218.0	222.9	227.8	4134	4960.8	5374.2	5756.1	6655.4	4134
O-Pile 121-1901	1574.8	12	1900.8	12018.4	3413.3	946327.9	254.5	260.0	265.6	4143.2	4971.8	5386.1	5768.8	6670.2	4143.2
O-Pile 121-1698	1371.6	14.29	1697.6	12052.3	3413.3	826549.2	294.2	300.5	306.7	4154.9	4985.9	5401.4	5785.1	6689	4154.9
O-Pile 122-1596	1270	15.88	1596	12135.6	3413.3	770607.8	321.0	327.6	334.3	4183.6	5020.3	5438.7	5825.1	6735.2	4183.6
O-Pile 123-1850	1524	12.7	1850	12213	3413.3	930627	267.3	273.0	278.8	4210.3	5052.3	5473.3	5862.2	6778.2	4210.3
O-Pile 123-1444	1117.6	19.05	1443.6	12298.2	3413.3	687223.6	372.2	379.5	386.8	4239.7	5087.6	5511.6	5903.1	6825.5	4239.7
O-Pile 124-1240	914.4	25.4	1240.4	12367.6	3413.3	565446.6	466.0	474.6	483.1	4263.6	5116.3	5542.7	5936.4	6864	4263.6
O-Pile 125-1393	1066.8	20.64	1392.8	12495.1	3413.3	666491.2	397.5	405.1	412.7	4307.6	5169.1	5599.8	5997.7	6934.8	4307.6
O-Pile 126-1291	965.2	23.81	1291.2	12527.6	3413.3	604581	444.5	452.7	460.9	4318.7	5182.5	5614.3	6013.2	6952.8	4318.7
O-Pile 126-1342	1016	22.22	1342	12570.9	3413.3	638602.1	421.6	429.5	437.3	4333.7	5200.4	5633.8	6034	6976.9	4333.7
O-Pile 126-1748	1422.4	14.29	1748.4	12599.1	3413.3	896047.8	295.9	302.0	308.0	4343.4	5212.1	5646.4	6047.6	6992.5	4343.4
O-Pile 127-1545	1219.2	17.46	1545.2	12637.3	3413.3	770372.8	348.6	355.4	362.3	4356.6	5227.9	5663.5	6065.9	7013.7	4356.6
O-Pile 128-1901	1574.8	12.7	1900.8	12702.4	3413.3	1000189.4	268.5	274.1	279.7	4379	5254.8	5692.7	6097.2	7049.8	4379
O-Pile 128-1647	1320.8	15.88	1646.8	12739.3	3413.3	841304.3	323.2	329.6	336.0	4391.7	5270.1	5709.2	6114.9	7070.3	4391.7
O-Pile 133-1444	1117.6	20.64	1443.6	13266	3413.3	741306.5	401.5	408.8	416.1	4573.3	5488	5945.3	6367.7	7362.7	4573.3
O-Pile 133-1291	965.2	25.4	1291.2	13296.5	3413.3	641687.6	472.3	480.5	488.7	4583.8	5500.5	5958.9	6382.3	7379.5	4583.8
O-Pile 133-1596	1270	17.46	1596	13298.9	3413.3	844479.9	351.2	357.8	364.5	4584.6	5501.6	5960	6383.5	7380.9	4584.6
O-Pile 134-2155	1828.8	11.11	2154.8	13301.6	3413.3	1216293.9	241.0	245.9	250.8	4585.6	5502.7	5961.2	6384.7	7382.4	4585.6
O-Pile 134-1698	1371.6	15.88	1697.6	13344.9	3413.3	915192	325.2	331.5	337.7	4600.5	5520.6	5980.6	6405.5	7406.4	4600.5
O-Pile 134-1393	1066.8	22.22	1392.8	13396	3413.3	714542.6	426.2	433.8	441.4	4618.1	5541.7	6003.5	6430.1	7434.8	4618.1
O-Pile 135-1342	1016	23.81	1342	13405.4	3413.3	680994.8	449.9	457.8	465.7	4621.4	5545.6	6007.8	6434.6	7440	4621.4
O-Pile 137-2460	2133.6	9.52	2459.6	13661.4	3413.3	1457399.6	211.4	215.7	220.0	4709.6	5651.5	6122.5	6557.5	7582.1	4709.6
O-Pile 137-1850	1524	14.29	1850	13696.5	3413.3	1043675.7	299.0	304.8	310.5	4721.7	5666	6138.2	6574.3	7601.6	4721.7
O-Pile 138-1545	1219.2	19.05	1545.2	13732.2	3413.3	837114.9	378.6	385.4	392.3	4734	5680.8	6154.2	6591.5	7621.4	4734
O-Pile 140-1748	1422.4	15.88	1748.4	13952.1	3413.3	992272.9	327.2	333.2	339.3	4809.8	5771.8	6252.8	6697	7743.4	4809.8
O-Pile 140-1647	1320.8	17.46	1646.8	13962.6	3413.3	922091.3	353.6	360.1	366.5	4813.4	5776.1	6257.5	6702.1	7749.3	4813.4
O-Pile 143-1444	1117.6	22.22	1443.6	14225.4	3413.3	794915.5	430.5	437.8	445.1	4904	5884.8	6375.2	6828.2	7895.1	4904

O-Pile 143-1342	1016	25.4	1342	14231.7	3413.3	722971.7	478.2	486.0	493.9	4906.2	5887.5	6378.1	6831.2	7898.6	4906.2
O-Pile 143-1901	1574.8	14.29	1900.8	14247	3413.3	1121806.6	300.5	306.0	311.6	4911.5	5893.8	6384.9	6838.5	7907.1	4911.5
O-Pile 143-1393	1066.8	23.81	1392.8	14288.5	3413.3	762148.2	454.9	462.5	470.1	4925.8	5910.9	6403.5	6858.5	7930.1	4925.8
O-Pile 144-2460	2133.6	10	2459.6	14333.1	3413.3	1529053.5	221.5	225.8	230.1	4941.2	5929.4	6423.5	6879.9	7954.9	4941.2
O-Pile 144-2155	1828.8	12	2154.8	14342.9	3413.3	1311518.5	259.3	264.3	269.2	4944.6	5933.5	6427.9	6884.6	7960.3	4944.6
O-Pile 145-1596	1270	19.05	1596	14453.4	3413.3	917788.2	381.5	388.1	394.8	4982.6	5979.1	6477.4	6937.6	8021.6	4982.6
O-Pile 147-1698	1371.6	17.46	1697.6	14628.3	3413.3	1003210.4	355.9	362.2	368.4	5042.9	6051.5	6555.8	7021.6	8118.7	5042.9
O-Pile 149-1545	1219.2	20.64	1545.2	14818.2	3413.3	903320	408.5	415.4	422.2	5108.4	6130.1	6640.9	7112.8	8224.1	5108.4
O-Pile 152-2155	1828.8	12.7	2154.8	15162.1	3413.3	1386425.7	273.8	278.7	283.6	5227	6272.3	6795	7277.8	8415	5227
O-Pile 152-1850	1524	15.88	1850	15170.7	3413.3	1156010.8	330.7	336.4	342.1	5229.9	6275.9	6798.9	7282	8419.8	5229.9
O-Pile 152-1393	1066.8	25.4	1392.8	15172.7	3413.3	809312.2	483.6	491.2	498.8	5230.6	6276.7	6799.8	7282.9	8420.9	5230.6
O-Pile 152-1444	1117.6	23.81	1443.6	15176.3	3413.3	848053.5	459.6	466.9	474.2	5231.9	6278.2	6801.4	7284.6	8422.9	5231.9
O-Pile 152-1647	1320.8	19.05	1646.8	15176.9	3413.3	1002283.2	384.2	390.7	397.1	5232.1	6278.5	6801.7	7284.9	8423.2	5232.1
O-Pile 153-1748	1422.4	17.46	1748.4	15295.8	3413.3	1087834.6	358.1	364.2	370.2	5273	6327.6	6854.9	7342	8489.1	5273
O-Pile 156-1596	1270	20.64	1596	15598.9	3413.3	990532.6	411.7	418.4	425.0	5377.5	6453	6990.8	7487.5	8657.4	5377.5
O-Pile 158-1901	1574.8	15.88	1900.8	15782	3413.3	1242676.8	332.3	337.9	343.5	5440.7	6528.8	7072.9	7575.4	8759	5440.7
O-Pile 159-1545	1219.2	22.22	1545.2	15895.6	3413.3	968994.3	438.2	445.0	451.9	5479.8	6575.8	7123.7	7629.9	8822	5479.8
O-Pile 160-1698	1371.6	19.05	1697.6	15902.6	3413.3	1090598.5	386.8	393.0	399.3	5482.2	6578.7	7126.9	7633.2	8825.9	5482.2
O-Pile 160-2460	2133.6	11.11	2459.6	15902.7	3413.3	1696503.5	245.0	249.4	253.7	5482.3	6578.7	7127	7633.3	8826	5482.3
O-Pile 162-1444	1117.6	25.4	1443.6	16118.7	3413.3	900713.5	488.6	495.9	503.3	5556.7	6668.1	7223.7	7737	8945.9	5556.7
O-Pile 164-1647	1320.8	20.64	1646.8	16382.2	3413.3	1081880	414.7	421.2	427.6	5647.6	6777.1	7341.8	7863.5	9092.1	5647.6
O-Pile 167-1748	1422.4	19.05	1748.4	16630.3	3413.3	1182749.9	389.2	395.3	401.3	5733.1	6879.7	7453	7982.6	9229.8	5733.1
O-Pile 167-1850	1524	17.46	1850	16635.6	3413.3	1267632.4	362.1	367.8	373.5	5734.9	6881.9	7455.4	7985.1	9232.8	5734.9
O-Pile 168-1596	1270	22.22	1596	16735.6	3413.3	1062713	441.7	448.3	455.0	5769.4	6923.3	7500.2	8033.1	9288.3	5769.4
O-Pile 170-1545	1219.2	23.81	1545.2	16964.2	3413.3	1034138	468.0	474.8	481.7	5848.2	7017.8	7602.7	8142.8	9415.1	5848.2
O-Pile 171-2155	1828.8	14.29	2154.8	17013	3413.3	1555666.4	306.6	311.5	316.4	5865	7038	7624.5	8166.2	9442.2	5865
O-Pile 172-2460	2133.6	12	2459.6	17151.3	3413.3	1829704	263.9	268.2	272.5	5912.7	7095.2	7686.5	8232.6	9519	5912.7
O-Pile 172-1698	1371.6	20.64	1697.6	17167.8	3413.3	1177368	417.6	423.8	430.0	5918.4	7102.1	7693.9	8240.5	9528.1	5918.4
O-Pile 174-1901	1574.8	17.46	1900.8	17307.6	3413.3	1362799.9	363.9	369.5	375.1	5966.6	7159.9	7756.6	8307.6	9605.7	5966.6
O-Pile 176-1647	1320.8	22.22	1646.8	17578.5	3413.3	1160881.7	445.0	451.4	457.8	6060	7271.9	7877.9	8437.7	9756	6060
O-Pile 179-1596	1270	23.81	1596	17863.6	3413.3	1134335.8	471.8	478.4	485.0	6158.2	7389.9	8005.7	8574.5	9914.3	6158.2
O-Pile 180-1748	1422.4	20.64	1748.4	17955.7	3413.3	1277007.5	420.2	426.3	432.3	6190	7428	8047	8618.7	9965.4	6190
O-Pile 181-1545	1219.2	25.4	1545.2	18024.1	3413.3	1098751	497.7	504.5	511.4	6213.6	7456.3	8077.7	8651.6	10003.4	6213.6
O-Pile 181-1850	1524	19.05	1850	18091.1	3413.3	1378540.5	393.6	399.3	405.1	6236.7	7484	8107.7	8683.7	10040.6	6236.7
O-Pile 182-2460	2133.6	12.7	2459.6	18134	3413.3	1934530	278.7	283.0	287.3	6251.5	7501.7	8126.9	8704.3	10064.3	6251.5
O-Pile 185-1698	1371.6	22.22	1697.6	18424	3413.3	1263519.1	448.0	454.3	460.5	6351.5	7621.7	8256.9	8843.5	10225.3	6351.5
O-Pile 188-1647	1320.8	23.81	1646.8	18766	3413.3	1239306.5	475.3	481.7	488.2	6469.4	7763.2	8410.2	9007.7	10415.1	6469.4
O-Pile 189-1901	1574.8	19.05	1900.8	18823.8	3413.3	1482186.4	395.7	401.2	406.8	6489.3	7787.1	8436.1	9035.4	10447.2	6489.3
O-Pile 189-2155	1828.8	15.88	2154.8	18854	3413.3	1724006.9	339.3	344.2	349.1	6499.7	7799.6	8449.6	9049.9	10464	6499.7
O-Pile 190-1596	1270	25.4	1596	18982.7	3413.3	1205401	501.8	508.4	515.0	6544.1	7852.9	8507.3	9111.7	10535.4	6544.1
O-Pile 193-1748	1422.4	22.22	1748.4	19271.9	3413.3	1370618.9	451.0	457.0	463.1	6643.8	7972.5	8636.9	9250.5	10695.9	6643.8

O-Pile 196-1850	1524	20.64	1850	19537.2	3413.3	1488735.1	425.1	430.8	436.5	6735.2	8082.2	8755.8	9377.9	10843.1	6735.2
O-Pile 197-1698	1371.6	23.81	1697.6	19671.2	3413.3	1349051.6	478.7	484.9	491.1	6781.4	8137.7	8815.8	9442.2	10917.5	6781.4
O-Pile 200-1647	1320.8	25.4	1646.8	19944.5	3413.3	1317136.3	505.6	512.0	518.5	6875.6	8250.7	8938.3	9573.4	11069.2	6875.6
O-Pile 204-1901	1574.8	20.64	1900.8	20330.7	3413.3	1600836.5	427.3	432.9	438.5	7008.8	8410.5	9111.4	9758.7	11283.5	7008.8
O-Pile 204-2460	2133.6	14.29	2459.6	20355.1	3413.3	2171483.2	312.3	316.6	320.9	7017.2	8420.6	9122.3	9770.5	11297.1	7017.2
O-Pile 206-1748	1422.4	23.81	1748.4	20579.2	3413.3	1463589.6	481.8	487.9	493.9	7094.4	8513.3	9222.7	9878	11421.4	7094.4
O-Pile 207-2155	1828.8	17.46	2154.8	20685.3	3413.3	1891460.9	371.8	376.7	381.6	7131	8557.2	9270.3	9928.9	11480.3	7131
O-Pile 210-1698	1371.6	25.4	1697.6	20909.6	3413.3	1433977.4	509.2	515.4	521.7	7208.3	8650	9370.8	10036.6	11604.8	7208.3
O-Pile 210-1850	1524	22.22	1850	20974.2	3413.3	1598232.4	456.3	462.0	467.7	7230.6	8676.7	9399.8	10067.6	11640.7	7230.6
O-Pile 219-1901	1574.8	22.22	1900.8	21828.1	3413.3	1718744.7	458.7	464.3	469.9	7525	9030	9782.5	10477.5	12114.6	7525
O-Pile 219-1748	1422.4	25.4	1748.4	21877.3	3413.3	1555914	512.6	518.7	524.7	7541.9	9050.3	9804.5	10501.1	12141.9	7541.9
O-Pile 225-1850	1524	23.81	1850	22401.9	3413.3	1707021.6	487.6	493.3	499.1	7722.8	9267.3	10039.6	10752.9	12433	7722.8
O-Pile 226-2155	1828.8	19.05	2154.8	22506.9	3413.3	2058028.6	404.4	409.3	414.2	7759	9310.8	10086.7	10803.3	12491.3	7759
O-Pile 226-2460	2133.6	15.88	2459.6	22566.2	3413.3	2407367.1	345.8	350.1	354.4	7779.4	9335.3	10113.3	10831.8	12524.3	7779.4
O-Pile 234-1901	1574.8	23.81	1900.8	23316.3	3413.3	1835927	490.3	495.8	501.4	8038	9645.6	10449.4	11191.8	12940.6	8038
O-Pile 239-1850	1524	25.4	1850	23820.4	3413.3	1815113.5	518.9	524.6	530.3	8211.8	9854.1	10675.3	11433.8	13220.3	8211.8
O-Pile 244-2155	1828.8	20.64	2154.8	24318.8	3413.3	2223714.5	437.0	441.9	446.8	8383.6	10060.3	10898.7	11673	13497	8383.6
O-Pile 248-2460	2133.6	17.46	2459.6	24767.4	3413.3	2642185.7	379.1	383.4	387.7	8538.3	10245.9	11099.7	11888.3	13745.9	8538.3
O-Pile 248-1901	1574.8	25.4	1900.8	24795.3	3413.3	1952383.2	521.7	527.3	532.9	8547.9	10257.5	11112.2	11901.8	13761.4	8547.9
O-Pile 262-2155	1828.8	22.22	2154.8	26121.2	3413.3	2388518.7	469.3	474.2	479.1	9005	10805.9	11706.4	12538.2	14497.2	9005
O-Pile 270-2460	2133.6	19.05	2459.6	26958.6	3413.3	2875939.2	412.5	416.8	421.1	9293.6	11152.4	12081.7	12940.1	14962	9293.6
O-Pile 280-2155	1828.8	23.81	2154.8	27913.8	3413.3	2552441.1	501.7	506.6	511.5	9623	11547.5	12509.8	13398.6	15492.2	9623
O-Pile 292-2460	2133.6	20.64	2459.6	29139.8	3413.3	3108631.5	445.9	450.2	454.5	10045.6	12054.7	13059.3	13987.1	16172.6	10045.6
O-Pile 297-2155	1828.8	25.4	2154.8	29697	3413.3	2715495.6	534.1	539.0	543.9	10237.7	12285.2	13309	14254.6	16481.8	10237.7
O-Pile 314-2460	2133.6	22.22	2459.6	31311.1	3413.3	3340266.7	479.0	483.3	487.6	10794.1	12952.9	14032.3	15029.3	17377.7	10794.1
O-Pile 335-2460	2133.6	23.81	2459.6	33472.6	3413.3	3570853	512.3	516.6	520.9	11539.3	13847.1	15001	16066.8	18577.3	11539.3
O-Pile 357-2460	2133.6	25.4	2459.6	35624.2	3413.3	3800386.2	545.5	549.8	554.1	12281	14737.2	15965.3	17099.6	19771.4	12281