Environmental Product Declaration

EPD of multiple products, based on the average results of the product group in accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Repurposed Tubular Steel Sourced from UK and European used Oil and Gas Tubulars from John Lawrie Tubulars

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
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An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com

General information

Programme information

Programme:	The International EPD® System.
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
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Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): Construction Products. PCR 2019:14. Version 2.0 Valid Until: 2030-04-07. CPC code 4128.
PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair: Rob Rouwette. The review panel may be contacted via the Secretariat www.environdec.com/
Life Cycle Assessment (LCA)
LCA accountability: Mark Dowling and Robert Holdway - Giraffe Innovation Ltd r.holdway@giraffeinnovation.com
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier Third-party individual verifier: Matt Fishwick, Fishwick Environmental Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐Yes **x** No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

For further information about comparability, see EN 15804 and ISO 14025.

Information about EPD owner

Company information

John Lawrie Tubulars
Forties Road
Industrial Estate
Montrose, DD10 9ET
United Kingdom

Website: https://johnlawrietubulars.com/

Description of the organisation: John Lawrie Tubulars is one of the largest traders of steel tubulars in the UK and USA, purchasing and supplying new and used tubing, casing, OCTG, drill pipe, drill collars and related products. The business is one of 3 divisions that make up the John Lawrie Group: Metals, Tubulars and Decommissioning services. Trading since the 1930s, the Group has diversified its service offering to become one of the most prominent steel tubulars, metal recycling and decommissioning businesses providing key services to the oil and gas, construction, utility, railways and highways and housing sectors.

The company operates from facilities in Scotland (Montrose) and the United States, with an annual turnover of ~£100 million (~US$160 million) and employing a team of more than 90 employees across the globe. John Lawrie Tubulars division holds a stock of around 100,000 tonnes of steel tubulars that are suitable for use in piling and micro-piling projects in the construction and civil engineering sectors globally.

The company remanufactures redundant steel tubulars from the North Sea oil and gas industry as a high-quality alternative for traditional concrete piles.

Name and location of production sites

John Lawrie Tubulars
Forties Road
Industrial Estate,
Montrose, DD10 9ET,
United Kingdom

Product information

Product name and identification: Repurposed Tubular Steel Sourced from UK and European used oil and gas tubulars.

Product description: The structural steel tubulars (pipes) are waste gas and oil tubulars. They are made from seamless hot drawn steel with an average size of 244.5 mm outside diameter x 13.84 mm wall (78.72 kg/metre) by 12.70 metres per 1 tonne.

The tubulars are repurposed for use in piling applications for building foundations in UK, Spain and Canada. There are minimal other reuse markets for these tubulars aside from recycling as scrap steel.

UN CPC code: 4128 – Tubes, pipes and hollow profiles of steel.

Geographical scope: The tubulars are recovered from within the UK and Europe and delivered to JLT for inspection and storage before onward distribution to customers in Europe and the USA.

Content declaration

The content declaration shows the mass of product component per declared unit and represents the average content of the product group. The declared unit is 1 tonne of repurposed seamless tubular steel sourced from UK and European used oil and gas tubulars.

Table 1: Product and packaging information

Product components	**Mass, kg**	**Post-consumer material, mass-% of product**	**Biogenic material, mass-% and kg C/ declared unit**
Hot rolled/drawn steel	1000	100%[1]	0% and 0
Packaging materials	**Mass, kg**	**Mass-% (versus the product)**	**Biogenic material, kg C/declared unit**
Wood blocks[2]	0.57	0.06	0.28

The product does not contain any substances from the Candidate List of Substances of Very High Concern (SVHC) for authorisation in amounts greater than 0.1%.

LCA information

Declared unit: The declared unit is 1 metric tonne of repurposed tubular steel sourced from UK and European used oil and gas tubulars. This is an aggregated data set based upon numbers of tubulars recovered and refurbished in 2024.

As the tubulars are from used pipeline projects they are deemed as post-consumer waste and are burden free.

Reference service life: A reference service life for steel tubulars is not declared because they can be used in a variety of different forms of construction, and the final construction application is not defined. To determine the full-service life, all factors would need to be included such as location and environment, corrosion, and fire protection. Typical foundation designs are for lifespans of 50-100 years.

Time representativeness: Covers one year for 1st January 2024 to 31st December 2024.

Database(s) and LCA software used: ecoinvent v3.10 (cut-off), World Steel Association reference year 2021, and SimaPro 9.6.0.1.

EPD type: The EPD type is an EPD of multiple products, based on the average results of the product group. Allocation of different sizes was carried out on a mass basis, so there is no difference in per tonne impact.

LCA methodology
EN 15804 reference package based on EF 3.1 was used.

Allocation methodology
As the tubulars are from used pipeline projects they are deemed as post-consumer waste and are burden free.

Waste generated in A1 to A4 is allocated on the polluter pays principle. All waste treatment process including those of disposal are assigned to the product system generating the waste.

As the tubulars are left in situ at end of life they are allocated 0 burden in C1 to C4 and D.

[1] It is an aggregated data set based upon numbers of tubulars recovered and refurbished in 2024.
[2] The carbon content (C) is assumed to be 50% and the wood fully dry, density 700 kg/m^{3}. 44/12 is the ratio between the molecular mass of CO_2 and C molecule.

Description of system boundaries: Cradle to gate with options, module C1-C4, module D and optional modules A4 and A5. The EPD includes the initial recovery and refurbishment of a tube that has been recovered as a used pipeline product.

The system boundary (Figure 1) begins at the dockside or collection site.

System Diagram

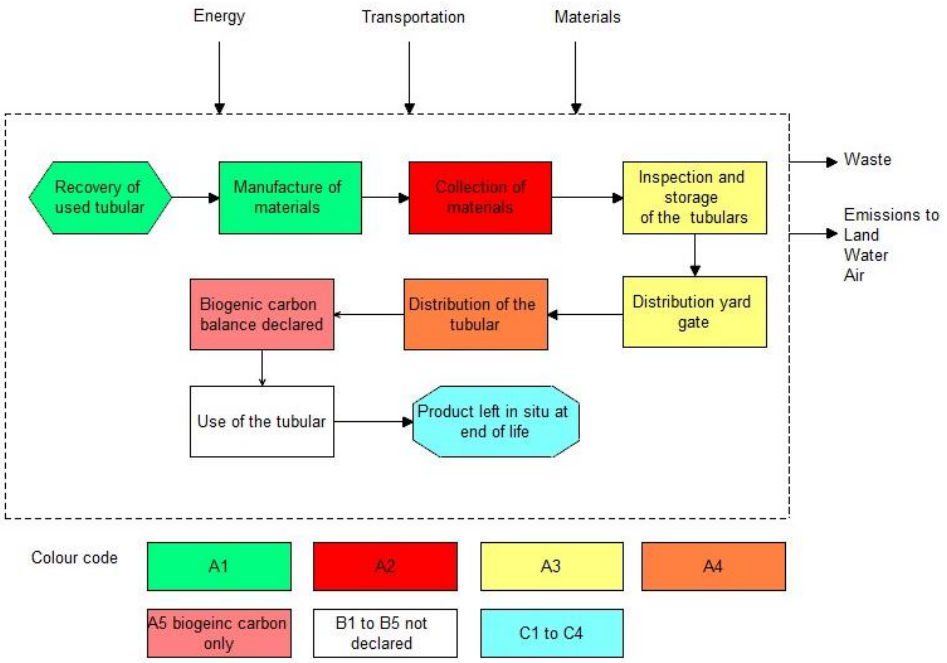

Figure 1: System boundary

Based upon the tonnage collected in 2024 and the distance travelled by oceanic freight and road haulage the average distance and mode of transport is given (Table 2) and information on A3 to A5 and C in tables 3 to 6.

Table 2: Average transport to John Lawrie Tubular site (A2)

Scenario information	Unit
Vehicle used for tubulars	>32t freight lorry
Vehicle fuel type for tubulars	Diesel
Average road distance for tubulars	40 km
Bulk density and capacity utilisation for tubulars	7850 kg/m^3 and 50%
Sea transport for tubulars	Container ship
Fuel type used by container ship	Heavy fuel oil
Average sea distance for tubulars	306 km
Delivery of consumables for pipe pile fabrication	Transport, freight, lorry 16-32 metric ton, EURO 6 and container ship
Distance travelled by consumables	Varies per consumable, and each one modelled according to distance.

The tubes are stored on the JLT (A3) site and then delivered to the customers' site (A4).

Table 3: A3 manufacturing information

A3 Scenario information	Unit
Electricity	12.83 kWh
Water use	0.22 m^3
Waste generated on site	Steel scrap and consumables

During manufacturing the tubular it might be cut, bevelled, welded, shot blasted or painted if required and then supplied to the client. Up to 11 different consumables are used including welding gases, grinding and cutting discs, wire rope and saw blades and diesel. These were all modelled using ecoinvent databases and where data gaps were apparent these were completed using information supplied by JLT

Table 4: A4 scenario information

A4 Scenario information	Unit
Vehicle used for delivery of tubular	>32t articulated freight vehicle
Vehicle fuel type	Diesel
Average road distance	82 km
Bulk density and capacity utilisation	7850 kg/m^3 and 50%
Ship used for delivery of tubulars	Container ship
Fuel type used by container ship	Heavy fuel oil
Average sea distance	6803 km
Rail transport used	Freight train
Fuel used by freight train	60% electricity, 40% diesel
Average rail distance	143 km

No data was available for the installation in A5 and this is only used to balance the biogenic carbon of the pine chock blocks

Table 5: A5 scenario information

A5 Scenario information	Unit
Disposal of pine chock blocks (incineration and biogenic balance)	0.57 kg

As the tubular is buried under ground and left it left in situ at end of life (C4), the impact was assumed to be the same as a sanitary landfill.

Table 6: C4 disposal

End of life Scenario information	Unit
Left it situ	1 tonne of tubulars

Assumption and estimates

For transportation of the tube from supplier back to JLT a weighted average based upon the total annual purchasing in 2024 was calculated (Table2).

For transportation of the tube from JLT to the customer, a weighted average based upon the total annual sales and deliveries in 2024 was calculated (Table 4).

As the tubulars are left in situ after use, which could by as long as 100 years, the degradation will be minimal due to the anaerobic conditions.

Cut off Rules

When building a life cycle inventory (LCI), it is typical to exclude items considered to have a negligible contribution to results. To do this in a robust manner there must be confidence that the exclusion is fair and reasonable. Therefore, cut-off criteria are defined, which allow items to be neglected if they meet the criteria. In this study exclusions could be made if they were expected to be within the below criteria:

- The LCI data shall be a minimum of 95% of total inflows (mass and energy) per module (e.g. A1-A3, A4-A5, B1-B5, B6-B7, C1-C4 and module D).
- This EPD applies the expanded cut-off rule of ISO 21930, which says that at least 95% of the environmental impact per module shall be included as well. Plausibility assessments and expert judgement can be used to demonstrate compliance with these criteria.

Data quality indicators (DQIs)

To ensure data quality, checks were completed on key data parameters using data quality indicators (DQIs) which are applied to key data parameters to ensure fit for purpose. Key data parameters are assessed against a data quality matrix. The data quality matrix used in this study is shown (Table 6) and the scoring for the data is highlighted in grey.

Table 7: Data quality indicators

Score	Very good	Good	Fair	Poor	Very poor
Reliability of the source	Verified data based on measurements	Verified data partly based on assumptions or unverified data based on measurements	Non-verified data partly based on assumptions	Qualified estimate (e.g., by industrial expert)	Non-qualified estimate
Representative	Representative data from sufficient sample of sites over an adequate period to even out normal fluctuations	Representative data from a smaller number of sites but for adequate periods	Representative data from an adequate number of sites but from shorter periods	Representative data but from a smaller number of sites and shorter periods or incomplete data from an adequate number of sites and periods	Representativeness unknown or incomplete data from a smaller number of sites and/or from shorter periods
Temporal correlation	Less than three years of difference to year of study	Less than six years of difference	Less than 10 years of difference	Less than 15 years of difference	Age of data unknown or more than 15 years of difference
Geographical correlation	Data from area under study	Average data from larger area in which the area under study is included	Data from area with similar production conditions	Data from area with slightly similar production conditions	Data from unknown area or area with very different production conditions
Technological correlation	Data from enterprises, processes, and materials under study	Data from processes and materials under study but from different enterprises	Data from processes and materials under study but from different technology	Data on related processes or materials but same technology	Data on related processes or materials but different technology

Life cycle stages that have been omitted from the scope of the study include the following:

- Human energy inputs to processes;
- Infrastructure and capital goods;
- Transport of employees to and from their normal place of work.

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

Table 8: Modules declared

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules declared	X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	GLO	EU	UK	GLO	GLO	ND	ND	ND	ND	ND	ND	ND	GLO	GLO	GLO	GLO	GLO
Share of specific data	38.7%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

X included in LCA - ND: module not declared -

The content declaration below represents the average content for the product group.

Table 9: Data sources for processes contributing >10% of A1-A3 GWP-GHG results.

Process	Source type	Source	Reference year	Data category	Share of primary data of GWP-GHG results for A1-A3
Transport (A2)					
Diesel consumption	JLT and database	ecoinvent v3.10	2024	Primary (distance) and secondary (impact factor) data	0%
Manufacturing (A3)					
Welding gases	JLT and database	ecoinvent v3.10	2024	Primary data	30.8%
Diesel consumption	JLT and database	ecoinvent v3.10	2024	Primary data	2.9%
Electricity	Energy supplier	ecoinvent v3.10	2024	Primary data	5.0%
Total share of primary data, of GWP-GHG results for A1-A3					**38.7%**

Electricity use

The following table gives a breakdown of the electricity used by JLT based upon the data supplied by the energy supplier and Renewable Energy Guarantees of Origin (REGOs). The GWP-GHG total per kWh is 0.111 kgCO_2 eq.

Table 10: Electricity mix used for A3

Electricity source	% of total kWh
Onshore wind	16
Offshore wind	17
Photovoltaic	34
Hydo run off river	16.5
Hydro pump storage	16.5

Environmental performance

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

Results represent the product average for all tubular sizes based upon weighted average of annual production.

The only difference in the products is where it is sourced from (A2) and the distance it travels to the installation site (A4).

Mandatory impact category indicators according to EN 15804, EF 3.1

Table 11: Results of mandatory environmental performance indicators

Results per 1 metric tonne of used oil and gas tubulars									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	2.98E+01	8.49E+01	8.23E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-fossil	kg CO_2 eq.	3.01E+01	8.49E+01	5.62E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-biogenic	kg CO_2 eq.	-4.11E-01	1.54E-02	7.66E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-luluc	kg CO_2 eq.	1.07E-01	4.80E-02	9.36E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ODP	kg CFC 11 eq.	6.37E-07	1.27E-06	7.61E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AP	mol H^+ eq.	2.62E-01	2.12E+00	4.40E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EP-freshwater	kg P eq.	4.90E-03	4.91E-03	1.60E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EP marine	kg N eq.	8.47E-02	5.34E-01	2.13E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EP-terrestrial	mol N eq.	9.53E-01	5.92E+00	2.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
POCP	kg NMVOC eq.	2.96E-01	1.63E+00	5.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADP-minerals & metals*	kg Sb eq.	1.99E-04	1.11E-04	1.33E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ADP-fossil*	MJ	5.16E+02	1.08E+03	6.22E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP*	m^3	2.49E+01	3.54E+00	1.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Acronyms
GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals & metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

Additional mandatory and voluntary impact category indicators, EF 3.1

Table 12: Results of additional environmental performance indicators

Results per 1 metric tonne of used oil and gas tubulars									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[3]	kg CO_2 eq.	3.03E+01	8.49E+01	5.63E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Particulate matter	disease inc.	4.19E-06	3.45E-06	6.01E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ionising radiation*	kBq U-235 eq	1.33E+00	1.59E+00	6.49E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ecotoxicity, freshwater**	CTUe	2.08E+02	2.25E+02	2.10E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Human toxicity, cancer**	CTUh	4.54E-07	4.37E-07	1.33E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Human toxicity, non-cancer**	CTUh	2.59E-07	3.38E-07	4.16E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Land use	Pt	2.73E+02	2.56E+02	3.54E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Disclaimers

*This impact category deals mainly with the eventual impact of low dosing ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure, nor due to radiative waste in underground facilities. Potential ionizing radiation from soil, from radon and from some materials is also not measured by this indicator.

** The results of these environmental impact indicators should be used with care as the uncertainties of these results are high or as there are limited experiences with the indicator.

Resource use indicators

Table 13: Resource use indicators

Results per 1 metric tonne of used oil and gas tubulars									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	6.76E+01	1.86E+01	1.23E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERM	MJ	8.81E+00	0.00E+00	-8.81E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	7.64E+01	1.86E+01	-8.79E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRE	MJ	5.19E+02	1.14E+03	6.69E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	5.19E+02	1.14E+03	6.69E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SM	kg	1.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	4.30E+00	1.28E-01	4.78E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Acronyms

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

Waste indicators

Table 14: Waste indicators

Results per 1 metric tonne of used oil and gas tubulars

[3] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO_2 is set to zero.

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Non-hazardous waste disposed	kg	5.52E+01	0.00E+00	5.72E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Radioactive waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Output flow indicators

Table 15: Output flow indicators

Results per 1 metric tonne of used oil and gas tubulars									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	5.72E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Additional environmental information

The Directors, management and staff of John Lawrie Tubulars remain committed to on-going environmental, social, and sustainability improvements and constantly seek innovations in our manufacturing processes, training schemes and supply chains that will make a positive difference in these areas.

The materials accounted for in Raw Material Supply (A1) are the consumables used in moving and refurbishing the tubulars on site and the wooden blocks used to wedge the tubulars in place to prevent movement.

The transportation impacts in Transport (A2) are based upon 2024 data on weights of tubulars recovered from sites across UK and Europe.

The tubulars will be used in the building foundation and last as long as the building remains in place. At end of life the life of the building the tubulars are left in situ as they-are pile driven 18m down. Theoretically the tubulars could be tested and reused in situ for the next building, however, this is judged to be unlikely. Reuse-Recovery-Recycling Potential (D) has been modelled to identify the potential benefits of recovering the tubulars as scrap metal. As the tubulars are not generally recovered C1 to C4 and D are all 0.

Abbreviations

Table 16: List of abbreviations

Abbreviation	Definition
General Abbreviations	
DQI	Date Quality Indicator
EN	European Norm (Standard)
EF	Environmental footprint
GLO	Global
ISO	International Organization for Standardization
LCI	Life cycle inventory
OCTG	Oil Country Tubular Goods
PCR	Product Category Rules
SVHC	Substances of Very High Concern
ND	Not Declared

References

General Programme Instructions of the International EPD® System. Version 5.0.0.

Construction Products. PCR 2019:14. Version 2.0.0. Valid Until: 2030-04-07

EN 15804+A2. Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products.

ISO 14025, 2006 Environmental labels and declarations. Type III environmental declarations. Principles and procedures

ISO14044, 2006 Environmental management, Life cycle assessment Requirements and guidelines.

ISO 14040, 2006 Environmental management, Life cycle assessment Principles and framework
Life Cycle Assessment (LCA) Report. .Repurposed Tubular Steel Sourced from UK and European used Oil and Gas Tubulars. Giraffe Innovation

Life Cycle Assessment (LCA) Report. Repurposed Tubular Steel Sourced from UK and European used Oil and Gas Tubulars. Giraffe Innovation.

Version history

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