



## AmSpec Italia S.r.l.

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MOD LABNA-ENEL Rev 05

Pg. 1/2

CLIENT	ENEL TRADE S.p.A
SAMPLE CONTAINER	plastic bag 100g + bag 2Kg
AMSPEC REF.	615-22-00909
PRODUCT (\$)	COAL
OPERATION (\$)	I SEMESTRE 2023
SAMPLING BY (\$)	SAMPLING&ANALYSIS - by ASTM D2013-0
PORT / HUB (\$)	TORRE VALDALIGA NORD - CIVITAVECCHIA
SAMPLING DATE (\$)	23-25/05/2023
RECEIVING DATE	07/08/2023
GRUPPO (\$)	GR4

	SAMPLE	METHODS	CRB-micro GR 4
	SEAL NR		not sealed
	TEST REPORT		615-23-00909-003
AS DETERMINED	Moisture %	ASTM D7582-15	3,15
	Ash %	ISO 1171:2010	14,61
	Volatile matter %	ISO 562:2010	26,9
	Fixed Carbon %	ASTM D7582-15	55,4
	Gross Calorific Value Kcal/kg	ISO 1928:2020	6134
	Gross Calorific Value Btu/lb	ISO 1928:2020	11040
	Net Calorific Value Kcal/kg	ISO 1928:2020	5919
	Net Calorific Value Btu/lb	ISO 1928:2020	10653
	Sulphur %	ASTM D4239-18e1	0,98
	Carbon %	ASTM D5373-21	66,3
	Total Hydrogen %	ASTM D5373-21	4,21
	Nitrogen %	ASTM D5373-21	1,64
	Coal Hydrogen %	ASTM D3180-15	3,86
	Oxygen %	ASTM D3176-15	12,3
	Chlorine ppm (#)	ASTM D6721-01(15)	83
DRY BASIS	Fluorine ppm (#)	ASTM D3761-10	87
	Ash %	ISO 1171:2010	15,09
	Volatile matter %	ISO 562:2010	27,7
	Fixed Carbon %	ASTM D3180-15	57,2
	Gross Calorific Value Kcal/kg	ISO 1928:2020	6334
	Gross Calorific Value Btu/lb	ISO 1928:2020	11402
	Net Calorific Value Kcal/kg	ISO 1928:2020	6129
	Net Calorific Value Btu/lb	ISO 1928:2020	11032
	Sulphur %	ASTM D4239-18e1	1,01
	Carbon %	ASTM D5373-21	68,5
	Nitrogen %	ASTM D5373-21	1,69
	Total Hydrogen %	ASTM D5373-21	3,99
	Oxygen %	ASTM D3176-15	9,8
	Chlorine ppm (#)	ASTM D6721-01(15)	86
	Fluorine ppm (#)	ASTM D3761-10	90

Precision parameter apply in the determination of the test results are specified above.

This Test Report is for this sample only, the laboratory is not responsible for the sampling stage, the results refer to the sample, as received.

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The laboratory is not responsible for the information marked with (\$), that's are provided by the customer.

Tests marked "\*\*\*" are not included in the ISO/IEC 17025 accreditation of the laboratory

Tests marked "#" are performed in subcontracted laboratory Accredited ISO 17025 by Accredia n. 0736L

Napoli, 21-08-2023

dott. Francesco Anastasio

IAR MANAGER



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Pg. 2/2

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AMSPEC REF.	615-22-00909
PRODUCT (§)	COAL
OPERATION (§)	I SEMESTRE 2023
SAMPLING BY (§)	SAMPLING&ANALYSIS - by ASTM D2013-0
PORT / HUB (§)	TORRE VALDALIGA NORD - CIVITAVECCHIA
SAMPLING DATE (§)	23-25/05/2023
RECEIVING DATE	07/08/2023
GRUPPO (§)	GR4

	LOT NR	METHODS	CRB-micro GR 4
	SEAL NR		not sealed
	TEST REPORT		615-23-00909-003
AS DETERMINED	Moisture %	ASTM D7582-15	3,15
	Antimonio AD mg/kg	ASTM D6357-21a	< 1
	Arsenico AD (*) mg/kg	ASTM D4606-15	< 0,7
	Berillio AD mg/kg	ASTM D6357-21a	< 1
	Cadmio AD mg/kg	ASTM D6357-21a	< 1
	Cromo AD mg/kg	ASTM D6357-21a	15
	Manganese AD mg/kg	ASTM D6357-21a	31
	Mercurio AD (*) mg/kg	ASTM D3684-06	< 0,1
	Nichel AD mg/kg	ASTM D6357-21a	14
	Piombo AD mg/kg	ASTM D6357-21a	< 10
	Selenio AD (*) mg/kg	ASTM D4606-15	< 0,6
	Vanadio AD mg/kg	ASTM D6357-21a	16
	Zinco AD mg/kg	ASTM D6357-21a	13
DRY BASIS	Antimonio DB mg/kg	ASTM D6357-21a	< 1
	Arsenico DB (*) mg/kg	ASTM D4606-15	< 1
	Berillio DB mg/kg	ASTM D6357-21a	< 1
	Cadmio DB mg/kg	ASTM D6357-21a	< 1
	Cromo DB mg/kg	ASTM D6357-21a	15
	Manganese DB mg/kg	ASTM D6357-21a	32
	Mercurio DB (*) mg/kg	ASTM D3684-06	< 1
	Nichel DB mg/kg	ASTM D6357-21a	14
	Piombo DB mg/kg	ASTM D6357-21a	< 10
	Selenio DB (*) mg/kg	ASTM D4606-15	< 0,6
	Vanadio DB mg/kg	ASTM D6357-21a	17
	Zinco DB mg/kg	ASTM D6357-21a	13

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Napoli, 21-08-2023

dott. Francesco Anastasio  
LAB MANAGER