FUEL ANALYSIS

Sample ID	Syntroleum fuel
Product	Diesel fuel
RTS code	RTS 4427
Date of Analysis	########

Test	Method	Syntroleum S-2 Result	BP Low Sulfur Diesel Result
Apperance	Visual*	Clear & Bright	Clear & Bright
Colour	Visual*	Water White	Yellow
Water and Sediment, % (v/v)	Visual*	None visible	None visible
Flash point	ISO 2719*	65	73
Ramsbottom Carbon Residue on 10% Residue, % (m/m)	ISO 10370	0.02	0.04
Ash Content, % (m/m)	ISO 6245	<0.005	<0.005
Water, % (m/m)	ASTM D1744	85	132
Total Contamination, mg/kg	EN 12662	<1	2
Copper Corrosion 3 hours at 50°C	ISO 2160	1	1
Oxidation Stability, g/m3	ISO 12205	<1.0	<1.0
Sulphur, % (m/m)	ISO 8754	<0.001	0.003
Water and Sediment, % (v/v)	ASTM 2709	<0.005	<0.005
Cold Filter Plugging Point, °C	IP 309	-34	-9.0
Density at 15°C, kg/L	ISO 12185	0.7701	0.8324
Kinematic Viscosity at 40°C, mm2/s	ISO 3104	2.065	3.071
Cetane Number	ISO 5165*	74.0	55.5
Distallation	ISO 3405		
IBP,°C		172.0	180.0
10% v rec.at,°C		198.0	228.0
50% v rec.at,°C		245.5	279.5
90% v rec.at,°C		308.0	331.0
95% v rec.at,°C		324.0	345.0
FBP, °C		333.0	353.0
% v rec at 250 °C, % (v/v)		53.5	22.5
Recovery, % (v/v)		97.5	98.0
Residue, % (v/v)		1.0	1.0
Loss, % (v/v)		1.5	1.0
Cloud Point, °C	EN 23015*	-30.0	-5
Lubricity, microns	ISO 12156-1*	475.0	314
Aromatics	IP 391*		
Total Aromatics, % (m/m)		<0.1	24.1
Monocyclic Aromatics, % (m/m)		<0.1	19.5
Bicyclic Aromatics, % (m/m)		<0.1	4.1
Tricyclic and Higher Aromatics, % (m/m)		<0.1	0.5
Cetane Index	ISO 4264*	78.6	57.5
Distillation, % (m/m)	ISO 3405		96.5

Items marked with (*) do not fall within the current scope of NAMAS accreditation

Analysis carried out by NAMAS accredited test laboratory.
Laboratory report number 00-002190-0-WTHU (3)

FUEL ANALYSIS

Sample ID	BP.EN590 low sulphur
Product	Diesel fuel
RTS code	RTS 4428
Date of Analysis	########

Test	Method	Result
Apperance	Visual*	Clear & Bright
Colour	Visual*	Yellow
Water and Sediment, % (v/v)	Visual*	None visible
Flash point	ISO 2719*	73
Ramsbottom Carbon Residue on 10% Residue, % (m/m)	ISO 10370	0.04
Ash Content, % (m/m)	ISO 6245	<0.005
Water, % (m/m)	ASTM D1744	132
Total Contamination, mg/kg	EN 12662	2
Copper Corrosion 3 hours at 50°C	ISO 2160	1
Oxidation Stability, g/m^3	ISO 12205	<1.0
Sulphur, % (m/m)	ISO 8754	0.003
Water and Sediment, % (v/v)	ASTM 2709	<0.005
Cold Filter Plugging Point, °C	IP 309	-9.0
Density at 15°C, kg/L	ISO 12185	0.8324
Kinematic Viscosity at 40°C, mm^2/s	ISO 3104	3.071
Cetane Number	ISO 5165*	55.5
Distallation	ISO 3405	
IBP,°C		180.0
10% v rec.at,°C		228.0
50% v rec.at,°C		279.5
90% v rec.at,°C		331.0
95% v rec.at,°C		345.0
FBP, °C		353.0
% v rec at 250 °C, % (v/v)		22.5
Recovery, % (v/v)		98.0
Residue, % (v/v)		1.0
Loss, % (v/v)		1.0
Cloud Point, °C	EN 23015*	-5
Lubricity, microns	ISO 12156-1*	314
Aromatics	IP 391*	
Total Aromatics, % (m/m)		24.1
Monocyclic Aromatics, % (m/m)		19.5
Bicyclic Aromatics, % (m/m)		4.1
Tricyclic and Higher Aromatics, % (m/m)		0.5
Cetane Index	ISO 4264*	57.5
Distillation, % (m/m)	ISO 3405	96.5

Items marked with (*) do not fall within the current scope of NAMAS accreditation

Analysis carried out by NAMAS accredited test laboratory.
Laboratory report number 00-002190-0-WTHU (3)

FUEL ANALYSIS

Sample ID	Syntroleum fuel
Product	Diesel fuel
RTS code	RTS 4427
Date of Analysis	########

Test	Method	Result
Apperance	Visual*	Clear & Bright
Colour	Visual*	Water White
Water and Sediment, % (v/v)	Visual*	None visible
Flash point	ISO 2719*	65
Ramsbottom Carbon Residue on 10% Residue, % (m/m)	ISO 10370	0.02
Ash Content, % (m/m)	ISO 6245	<0.005
Water, % (m/m)	ASTM D1744	85
Total Contamination, mg/kg	EN 12662	<1
Copper Corrosion 3 hours at 50°C	ISO 2160	1
Oxidation Stability, g/m^3	ISO 12205	<1.0
Sulphur, % (m/m)	ISO 8754	<0.001
Water and Sediment, % (v/v)	ASTM 2709	<0.005
Cold Filter Plugging Point, °C	IP 309	-34
Density at 15°C, kg/L	ISO 12185	0.7701
Kinematic Viscosity at 40°C, mm^2/s	ISO 3104	2.065
Cetane Number	ISO 5165*	74.0
Distallation	ISO 3405	
IBP,°C		172.0
10% v rec.at,°C		198.0
50% v rec.at,°C		245.5
90% v rec.at,°C		308.0
95% v rec.at,°C		324.0
FBP, °C		333.0
% v rec at 250 °C, % (v/v)		53.5
Recovery, % (v/v)		97.5
Residue, % (v/v)		1.0
Loss, % (v/v)		1.5
Cloud Point, °C	EN 23015*	-30.0
Lubricity, microns	ISO 12156-1*	475.0
Aromatics	IP 391*	
Total Aromatics, % (m/m)		<0.1
Monocyclic Aromatics, % (m/m)		<0.1
Bicyclic Aromatics, % (m/m)		<0.1
Tricyclic and Higher Aromatics, % (m/m)		<0.1
Cetane Index	ISO 4264*	78.6
Distillation, % (m/m)	ISO 3405	

Items marked with (*) do not fall within the current scope of NAMAS accreditation

Analysis carried out by NAMAS accredited test laboratory.
Laboratory report number 00-002190-0-WTHU (3)