

Appendix - Fleet

BGP CHALLENGER

2D/3D Seismic Vessel



Recording Instrument

Manufacturer:	Sercel
Type:	Seal 428
No. of Channels:	960 CH
Sample Rate:	0.5, 1, 2, 4 ms
Analog Filter :	Analog 3 hz @ 6db / oct, 0.8 NF (linear or minimum phase)
Recording Media:	IBM 3592

Streamer

Manufacturer:	Sercel
Type:	Sentinel Solid Streamer
Section Length:	150 m
Group Interval:	12.5 m
Streamer Configuration:	1 x 12 km, 2 x 6 km
Hydrophone Type:	Sercel Flexible Hydrophone
Hydrophones / Group:	8

Navigation Equipment

Manufacturer:	ION
Integrated Navigation System :	ORCA V.1.12.1
Navigation Processing:	Iris&Sprint
Depth Controller:	DigiCOURSE 5011E
Compass System:	DigiCOURSE 5011E
Primary DGPS:	Veripos Ultra
Secondary DGPS:	Verimap Apex
Tail Buoy & Source Positioning:	Seamap Buoylink Ex

Source Equipment

Manufacturer:	BOLT Technologies
Type:	BOLT LL-X 1900 Air Gun
No. of Sub-array:	4
Array Volume (max):	1 x 5680 cu.in.; 2 x 2840 cu.in.
Compressor:	3 x LMF31 / 138-207D
Compressor Capacity:	3 x 1100 cfm
Operating Pressure:	2000 psi - 3000 psi
Source Controller:	BigShot

Onboard Processing

Processing CPU:	HP xw8600 Workstation DELL T7600 Workstation
Processing Software:	GeoEast 3.0.5, KL-Streamer

Vessel Navigation & Communication

Radar:	1 x Furuno FR-2115 with RP250 AIS Interface 1 x Furuno FAR-2827
Communications:	Inmarsat mini C, F and VSAT
Gyro Compass:	Anschutz STD22
Auto Pilot:	Raytheon NP 60
Echo Sounder:	Kongsberg EA600
GPS Receiver:	Furuno 150
Speed Log:	Walker 4020
Weather Fax Receiver:	Furuno FX-30

General

Port of Registry:	Panama
Flag:	Panama
Class:	ABS
Year of Built:	2009
Length:	55 m
Breadth:	13.8 m
Draft (min / max):	4.6 m / 4.75 m
Gross Tonnage:	1987
Speed:	11 knots
Fuel Capacity:	500 m ³
Main Engine:	Niigata 6MG25HX, 2 x 1800 BHP
Bow Thruster:	5.0 T fixed pitch type
Auxiliary Engines:	2 x Volvo D12-AUX 1 x Cummins
Generators:	2 x 245 kw, 1 x 500 kw
Propeller Type:	2 sets, fixed pitch propeller
Accommodation:	46 persons
Life Boat:	6 x 20 persons 2 x 10 persons
FRC:	Norsafe

Appendix - Fleet

BGP EXPLORER

2D/3D Seismic Vessel



General	
Port of Registry:	Panama
Flag:	Panama
Class:	ABS / CCS
Year of Built:	2010
Length:	64 m
Breadth:	16 m
Draft (min / max):	4.35 m / 4.75 m
Gross Tonnage:	2655
Speed:	12 knots
Fuel Capacity:	700.5 m ³
Main Engine:	Niigata 6MG25HX 2 x 1800 BHP
Bow Thruster:	5.0 T fixed pitch type
Auxiliary Engines:	Volvo D12-AUX 2 x 250 BHP 2 x Caterpillar 3412
Generators:	2 x 245 kw, 2 x 500 kw
Propeller Type:	2 sets, fixed pitch propeller
Accommodation:	49 persons
Life Rafts:	6x 35 person, davit launch type
Life Boat:	Throwover / 8 x 20 & 2 x 2
Workboat:	1*25 ft, Norpower,
FRC:	1 x Norsafe 615

Vessel Navigation & Communication	
Radar:	Furuno FR-2115 with RP250 AIS Interface Furuno FR-1505 MK3 Furuno FR-2827 X-band 25 kw
Communications:	Inmarsat C, F and VSAT
Gyro Compass:	Anschutz STD22
Auto Pilot:	Raytheon NP 60
Echo Sounder:	SKIPPER ED165
GPS Receiver:	Furuno GP-150
Speed Log:	Walker 4020LOG
Weather Facsimile:	SAM Electronics Debeg 2952

Recording Instrument	
Manufacturer:	Sercel
Type:	Seal 428 System
No. of Channels:	960 CH
Sample Rate:	0.5, 1, 2, 4 ms
Analog Filter :	Analog 3 hz @ 6db / oct, 0.8 NF (linear or minimum phase)
Recording Media:	IBM 3592

Streamer	
Manufacturer:	Sercel
Type:	Sentinel Solid Streamer
Section Length:	150 m
Group Interval:	12.5 m
Streamer Configuration:	1 x 12 km, 2 x 8 km, 4 x 4.5 km
Hydrophone Type:	Sercel Flexible Hydrophone
Hydrophones / Group:	8

Navigation Equipment	
Manufacturer:	ION
Integrated Navigation System :	ORCA V.1.12.1
Navigation Processing:	Iris & Sprint
Depth Controller:	DigiCOURSE 5011E
Compass System:	DigiCOURSE 5011E
Streamer Steering:	DigiFIN 5120
Primary DGPS:	Veripos Ultra
Secondary DGPS:	Veripos Apex
Tail Buoy & Source Positioning:	Kongsberg Seatrack

Source Equipment	
Manufacturer:	Sercel
Type:	G.GUN II
No. of Sub-array:	6
Array Volume:	1 x 5200 cu.in., 2 x 3060 cu.in.
Model:	3 x LMF31 / 138-207D
Compressor Capacity:	3 x 1100 cfm
Operating Pressure:	2000 psi - 3000 psi
Source Controller:	BigShot

Onboard Processing	
Processing CPU:	12 + 3 + 1 (INTEL XEON Westmere-EPX5550 x 2 @ 2.67 GHz)
Processing Software:	GeoEast 3.0.5, KL-Streamer

Appendix - Fleet

DONG FANG KAN TAN No.1

2D/3D Seismic Vessel



General	
Port of Registry:	Tianjin
Flag:	China
Class:	CCS
Year of Built:	2007
Length:	65.82 m
Breadth:	13.8m
Draft (min / max):	3.5 m / 3.8 m
Gross Tonnage:	2257
Speed:	13.5 knots
Fuel Capacity:	393 m ³
Main Engine:	2 x Man B&W6L23/30A, 2 x 960 kw
Bow Thruster:	Schottel, 1*330 kw
Generators:	3 x Cummins & Simens 3 x 500 kw
Accommodation:	45 persons
Life Rafts:	4 x 15 + 4 x 20 persons
Work Boat:	1* NORPOWER 25 ft
FRC:	1* Norsafe 615

Vessel Navigation & Communication	
Radar:	Two X-band c/w ARPA
Communications:	Inmarsat C, F and VSAT
Gyro Compass:	TG-8000 TOKIMEC JP
Auto Pilot:	PR-6314A-ZZ TOKIMEC
Echo Sounder:	Kongsberg EA600
Speed Log:	TD-310 TOKIMEC JP
Navtex:	NX-700B
Weather Fax:	FAX-207 FURUNO JP

Recording Instrument	
Manufacturer:	Sercel
Type:	Seal 428
No. of Channels:	960
Sample Rate:	0.5, 1, 2, 4 ms
Recording Media:	IBM 3592

Streamer	
Manufacturer:	Sercel
Type:	Sentinel Solid Streamer
Section Length:	150 m
Group Interval:	12.5 m
Streamer Configuration:	1 x 12000 m
Hydrophone Type:	Sercel Flexible Hydrophone
Hydrophones / Group:	8

Navigation Equipment	
Manufacturer:	ION
Integrated Navigation System :	ORCA V.1.12.1
Navigation Processing:	Iris&Sprint
Depth Controller:	DigiCOURSE 5011E
Compass System:	DigiCOURSE 5011E
Primary DGPS:	Veripos Ultra
Secondary DGPS:	Veripos Apex
Tail Buoy & Source Positioning:	Seamap Buoylink Ex

Source Equipment	
Manufacturer:	Sercel
Type:	G.GUN
No. of Sub-array:	6
Array Volume:	1 x 5340 cu.in., 2 x 3420 cu.in.
Compressor:	3 x LMF 31 / 138-207 D
Compressor Capacity:	3 x 1100 cfm
Operating Pressure:	2000 psi - 3000 psi
Source Controller:	BigShot

Onboard Processing	
Processing CPU:	IBM 3950x6 8 cpu
	DELL PRECISION 2 cpu
Processing Software:	GeoEast 3.0.5, KL-Streamer

Appendix - Fleet

BGP PIONEER

High-Capacity 3D/2D Seismic Vessel



Recording Instrument

Manufacturer:	Sercel
Type:	Seal 428
No. of Channels:	560 CH x 6
Sample Rate:	0.5, 1, 2, 4 ms
Analog Filter :	3 hz @ 6db / oct, 0.8 NF (linear or minimum phase)
Recording Media:	IBM 3592

Streamer

Manufacturer:	Sercel
Type:	Sentinel Solid Streamer
Section Length:	150 m
Group Interval:	12.5 m
Streamer Configuration:	6 x 7000 m
Hydrophone Type:	Sercel Flexible Hydrophone
Hydrophones / Group:	8

Navigation Equipment

Manufacturer:	ION
Integrated Navigation System :	ORCA V.1.10.1
Navigation Processing:	Iris&Sprint
Binning Software:	Reflex
Streamer Compass & Depth System:	DigiCOURSE 5011E
Acoustic System:	DigiRANGE II, CMX
Streamer Steering:	DigiFIN 5120
Primary DGPS:	Veripos Ultra
Secondary DGPS:	Veripos Apex
Tail Buoy & Source Positioning:	Seamap Buoylink Ex

Source Equipment

Manufacturer:	Sercel
Type:	G.GUN
No. of Sub-array:	6
Array Volume:	2 x 3370 cu.in.
Compressor:	3 x LMF51 / 138-207D
Compressor Capacity:	3 x 1800 cfm
Operating Pressure:	2000 psi
Source Controller:	BigShot

Onboard Processing

Processing CPU:	64 CPU (24 nodes), IBM X3550M4 GeoEast 3.0.5
Processing Software:	KL-Streamer

Vessel Navigation & Communication

Radar:	1x FURUNO FAR-2827, 25 kw ARPA X-Band 1*FURUNO FAR-2837, 30 kw ARPA S-Band
Communications:	InmarsatC x 2, Iridium, VSAT,
Gyro Compass:	NAVIGATX MK1
Auto Pilot:	C-Joy Kongsberg
Echo Sounder:	EA600
GPS Receiver:	Furuno GP-150, GP-39
Navtex:	Furuno NX-700
Weather Facsimile:	FURUNO FAX 408

General

Port of Registry:	Panama
Flag:	Panama
Class:	Lloyds Registry
Year of Built:	1987
Length:	83.7 m
Breadth:	19.5 m
Draft (min / max):	5.75 m / 7.80 m
Gross Tonnage:	5739
Speed:	12 knots
Fuel Capacity:	1686 m ³
Main Engine:	1 x Wichmann 12V28B
Bow Thruster:	Brunvoll 500 hp
Auxiliary Power:	2 x Caterpillar 3516B, 1 x Caterpillar 3412AT
Electrical Power:	2 x 1800 kw
Accommodation:	60 persons
Life Boat:	NIL
Life Rafts:	8x Viking 25 person
Work Boat:	1*25 ft Norpower
FRC:	1* Norsafe MAKO655

Appendix - Fleet

REM ANDES

2D/3D Seismic Vessel



General	
Port of Registry:	Nassau
Flag:	Bahamas
Class:	BUREAU VERITAS
Year of Converted:	2019
Length:	87.9 m
Breadth:	18.8 m
Draft :	6.5 m
Gross Tonnage:	5458
Speed:	14 knots
Fuel Capacity:	2980 m ³
Main Engine:	2 x MAC 6M25 rated 1900 kW
Bow Thruster:	2 x 900 kW, 12,5 T Thrust, Scana
Auxiliary Engines:	2 x 600 kW, 8.7 T Thrust, Scana
Generators:	2 x CAT 3516C rated 2,350 kW
Propeller Type:	2 x CPP, Berg, 3m
Accommodation:	60 persons
Life Rafts:	12 x 16, Viking
Life Boat:	1 x 15 persons
Workboat:	1*25 ft, Norpower,
FRC:	1 x Norsafe 615

Vessel Navigation & Communication	
Radar:	FURUNO FAR-2X17B FURUNO FAR-2X37S-BB
Communications:	Inmarsat C, F and VSAT
Gyro Compass:	3 x Sperry Marine NAVIGAT X
Auto Pilot:	SPERRY MARINE "4000"
Echo Sounder:	FURUNO FE-720
AIS:	FURUNO FA-150
Speed Log:	FURUNO DS-60
Weather Facsimile:	FURUNO FAX-408

Recording Instrument	
Manufacturer:	Sercel
Type:	Seal 428 System
No. of Channels:	960 CH
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Analog Filter :	Analog 3 hz @ 6db / oct, 0.8 NF (linear or minimum phase)
Recording Media:	IBM 3592

Streamer	
Manufacturer:	Sercel
Type:	Sentinel Solid Streamer
Section Length:	150 m
Group Interval:	12.5 m
Streamer Configuration:	1 x 12 km, 2 x 8 km, 4 x 4.5 km
Hydrophone Type:	Sercel Flexible Hydrophone
Hydrophones / Group:	8

Navigation Equipment	
Manufacturer:	ION
Integrated Navigation System :	ORCA V.1.12.1
Navigation Processing:	Iris & Sprint
Depth Controller:	DigiCOURSE 5011E
Compass System:	DigiCOURSE 5011E
Streamer Steering:	DigiFIN 5120
Primary DGPS:	Veripos Ultra
Secondary DGPS:	Veripos Apex
Tail Buoy & Source Positioning:	Kongsberg Seatrack

Source Equipment	
Manufacturer:	Sercel
Type:	G.GUN II
No. of Sub-array:	6
Array Volume:	1 x 5200 cu.in., 2 x 3060 cu.in.
Model:	3 x LMF31 / 138-207D
Compressor Capacity:	3 x 1100 cfm
Operating Pressure:	2000 psi - 3000 psi
Source Controller:	BigShot

Onboard Processing	
Processing CPU:	12 + 3 + 1 (INTEL XEON Westmere-EPX5550 x 2 @ 2.67 GHz)
Processing Software:	GeoEast 3.0.5, KL-Streamer