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MED_AO6 AREA – OWF ZONE 4
UXO SURVEY

MED_TEC_58_FACTUAL REPORT - UXO SURVEY - OWF ZONE 4 AO6 AREA

PROJECT No.
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FACTUAL REPORT

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ABBREVIATIONS

ADCP	Acoustic Doppler Current Profiler
Ch	Channel
cm	Centimetre
CMP	Common Mid-Point
C-O	Computed Minus Observed
CoG	Centre of Gravity
CRP	Central Reference Point
DEMOB	Demobilisation
DGEC	Direction générale de l'énergie et du climat
DP	Dynamic Positioning
DPO	Dynamic Positioning Officer
DPR	Daily production report
EP	Environmental Protection
FLO	Fisheries Liaison Officer

ABBREVIATIONS

GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GRS	Geodetic Reference System
GSO	Geophysical Services Offshore
h	Hour
IMO	International Maritime Organization
J	Joule
JNCC	Joint Nature Conservation Committee
kHz	Kilohertz
LAT	Low Astronomical Tide
m	Meters
min	Minutes
MBES	Multibeam echosounder
mm	Millimetre
MOB	Mobilisation
MRU	Motion Reference Unit
MBES	Multibeam Echosounder System
POB	Personnel On Board
PAM	Passive Acoustic Monitoring
PPP	Precise Point Positioning
PPSU	Pulse Power Supply Unit
QA-QC	Quality Assurance – Quality Control
RTE	Réseau de Transport d'Électricité
RTK	Real Time Kinematics
s	Second
SHOM	Service Hydrographique et Océanographique de la Marine
SN	Serial Number
SRF	Ship's Reference Frame
SBP	Sub-Bottom Profiler
SVP	Sound Velocity Profiler
SVS	Sound Velocity Sensor
SSS	Side Scan Sonar
TBC	To be confirmed

ABBREVIATIONS

TTS	TTSurvey Ltd (Seismic equipment hire company)
UHR	Ultra-High Resolution
UTC	Coordinated Universal Time
UTM	Universal Transverse Mercator
UXO	Unexploded Ordnance
VSAT	Very-Small-Aperture Terminal
WB	Water Bottom
WD	Water Depth
WGS84	World Geodetic System 1984
WT	Work time
ZH	Hydrographic Zero or Hydrographic Datum

1. INTRODUCTION

This report together with the supporting appendix, describes the results of the UXO survey conducted by Tecnoambiente with the S/V Geo Focus in the Zone 4 offshore windfarm area (OWF) at MED_AO6 area (Mediterranean). Both the survey vessel and the equipment used for this task have been shared with the rest of offshore windfarm areas (Zones 1, 2, 3 and 4 OWF) and the Offshore Substation areas (Zone 1, 2 and 3 OSS).

The objective of the site survey was to perform an UXO survey over the proposed UXO GI points (Borehole locations) over the area of interest, comprising MBES, SSS and SBP datasets.

The purpose of this survey was to:

- To define the final location of the GI points on the proposed box
- To detect MBES, SSS and SBP contacts
- To review proposed borehole locations for geohazards

The main objective of this was to provide the ALARP certificates necessary for a subsequent geotechnical investigation to be conducted within the zone. The survey proved to be a success and all objectives were met as detailed herein.

2. SCOPE OF WORK

2.1. SURVEY AREA

The areas of interest are located in the Gulf of Lion off the French Mediterranean coast. These areas are 4 offshore windfarm (Zone 1 OWF, Zone 2 OWF, Zone 3 OWF and Zone 4 OWF) and 3 offshore substations (Zone 1 OSS, Zone 2 OSS and Zone 3 OSS) which are under investigation in this project (Figure 2-1).

The area of relevance in this report is Zone 4, located off the coast of Marseille (Figure 2-2):

- **Area: 267.35 km^2**
- ***Dimensions:* 21.40 km x 20.39 km.**
- ***Bathymetric range:* -87 m to -113 m *(Vertical reference Bathyelli v2 ZH)***

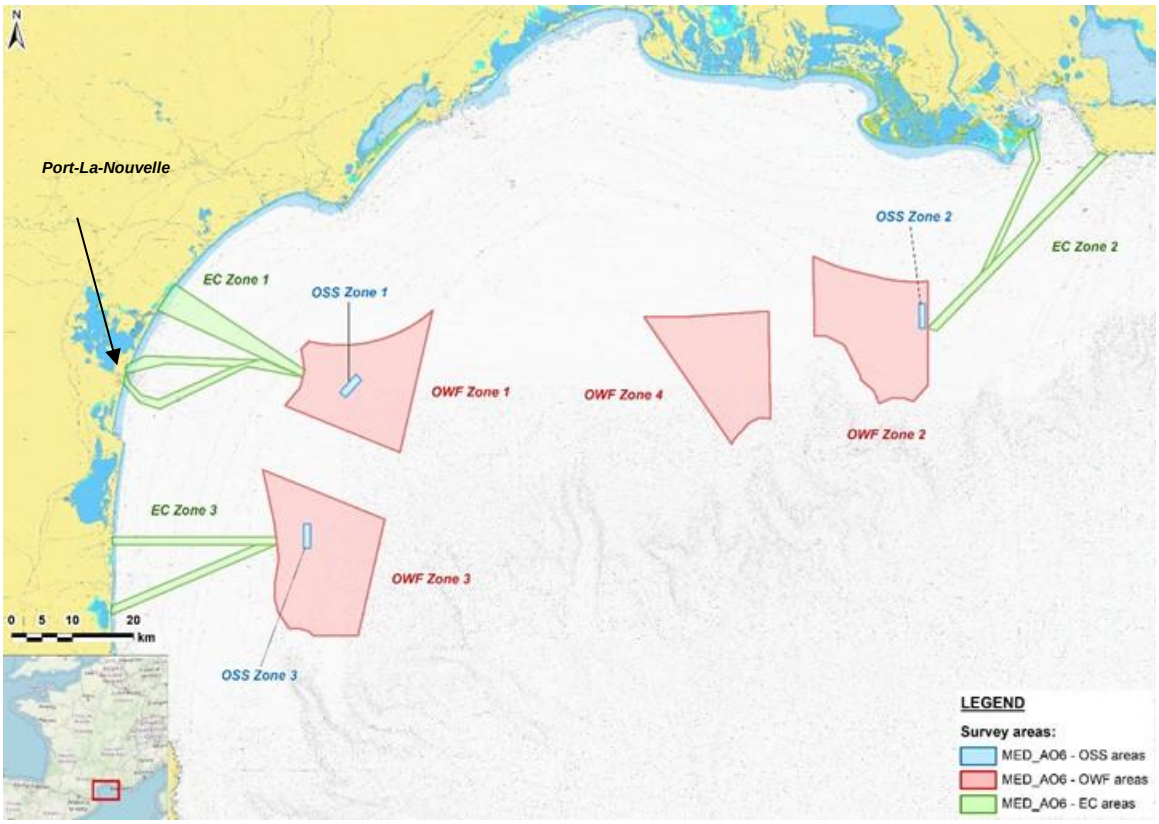


Figure 2-1: MED_AO6 survey area.

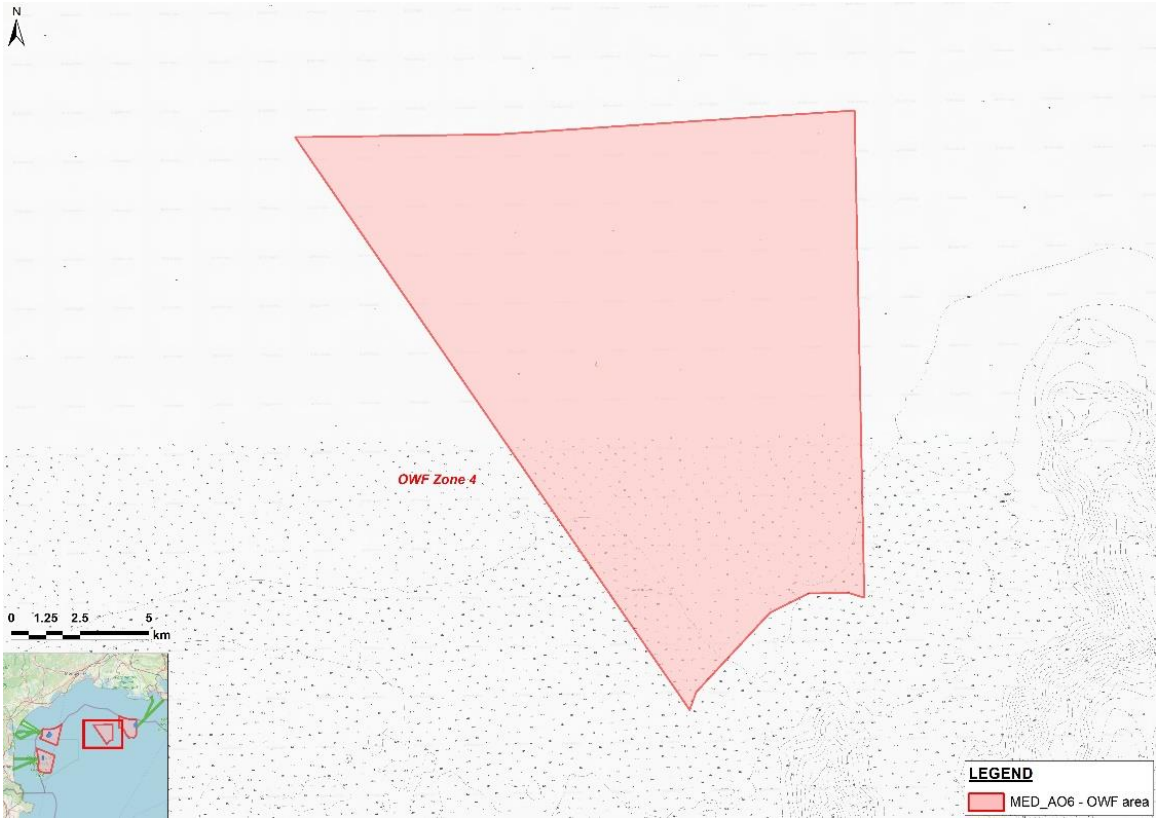


Figure 2-2: Windfarm area (OWF) in the MED_AO6 Zone 4 Survey area.

2.2. SURVEY PLAN

The AO6 Zone 4 OWF contained originally 20 UXO boxes but the scope was reduced to 14 UXO boxes. A lineplan of 3 lines with 30 meters spacing was performed to acquire the required geophysical data on each UXO box.

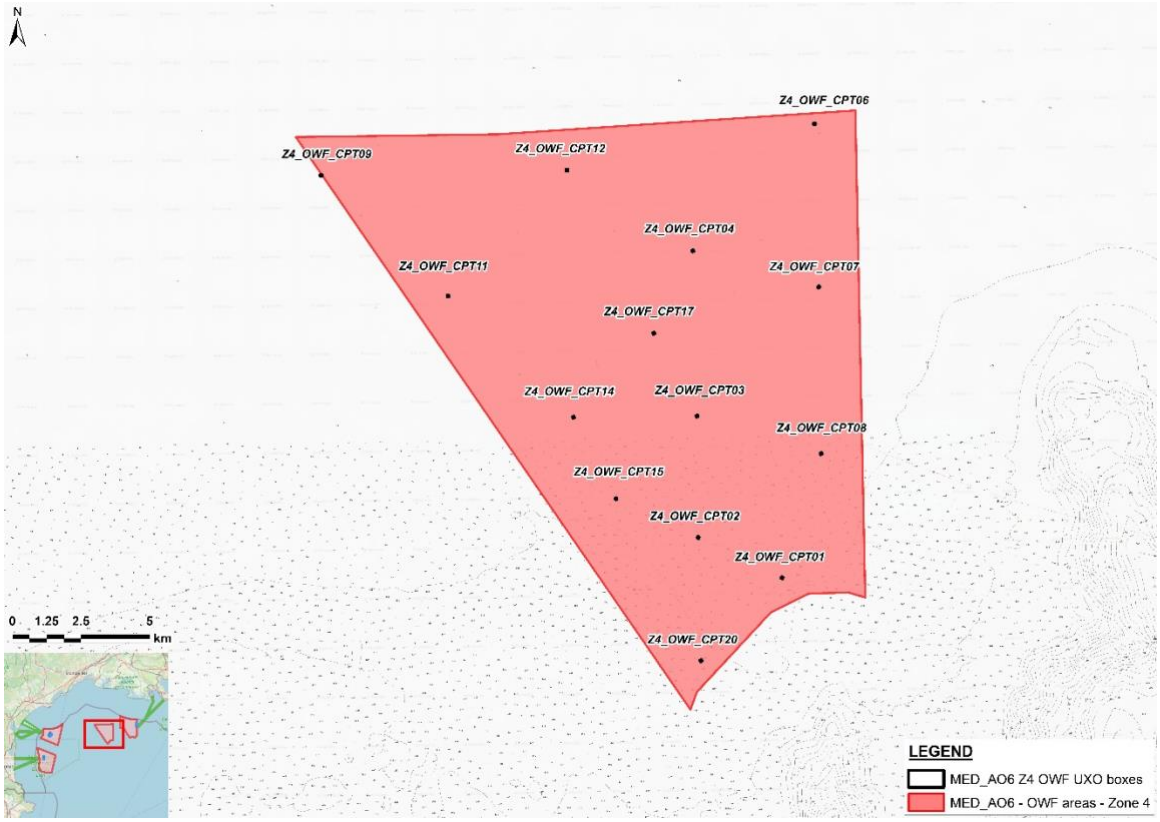


Figure 2-3: MED_AO6 Zone 4 OWF UXO boxes locations.

Each of the UXO boxes comprises an area of approximately 30m x 30m, with a run in / run out length of 400 metres utilised to optimise the acquisition of the geophysical data.

Figure 2-4 provides an example of the UXO survey boxes and Figure 2-5 illustrates the survey line plan for the different UXO risk locations (Please refer to section 2.4).

Figure 2-6 shows the general lineplan for UXO boxes at the survey area.

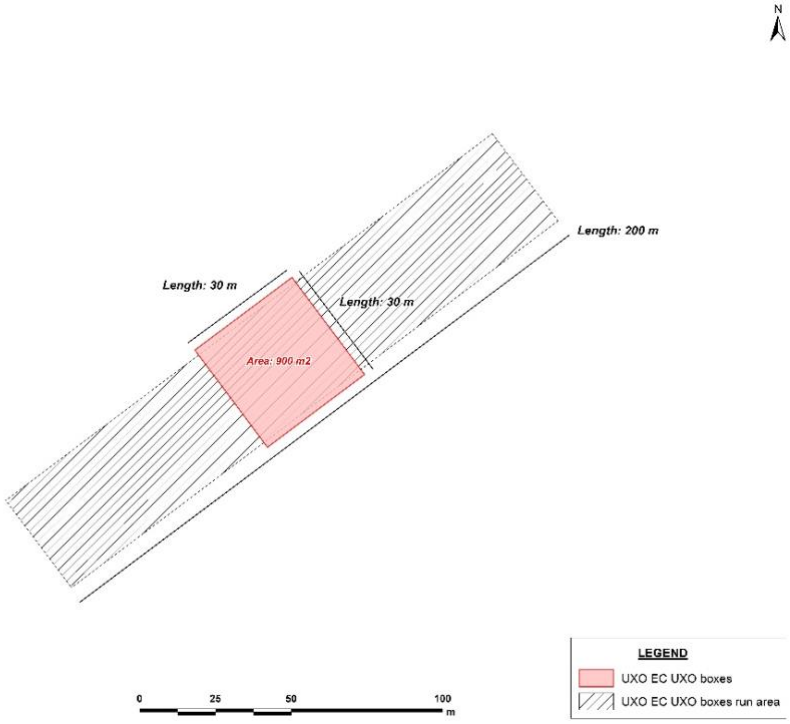


Figure 2-4: Example of UXO boxes dimensions.

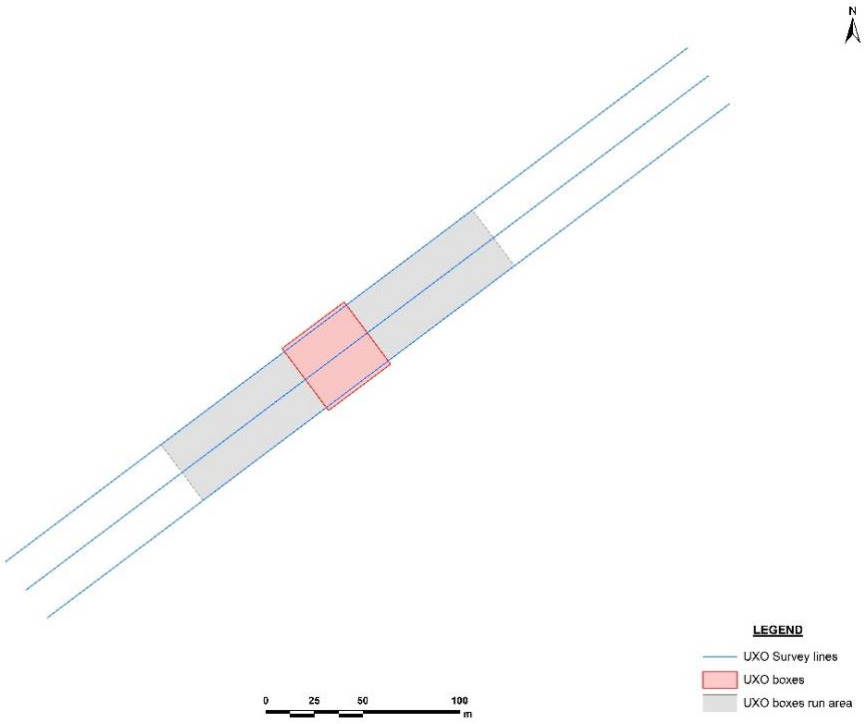


Figure 2-5: Example of UXO boxes survey line plan for the UXO Low and Medium risk locations.

Table 1: Summary for the number of UXO boxes in the MED_AO6 OWF Z4 area.

SUMMARY OF NUMBER OF UXO BOXES ON SITE		
Operation	**Unit**	**#**
MED_AO6 OWF Z4 GI Locations (UXO boxes)	*No*	14
TOTAL	***No***	**14**

Table 2: Summary for the survey line plan of the UXO boxes in the MED_AO6 OWF Z4 area.

SUMMARY OF LINEPLAN FOR THE UXO BOXES ON SITE		
Operation	**Unit**	**Length**
MED_AO6 OWF Z4 GI Locations (UXO boxes)	*km*	27.72
TOTAL	***km***	**27.72**

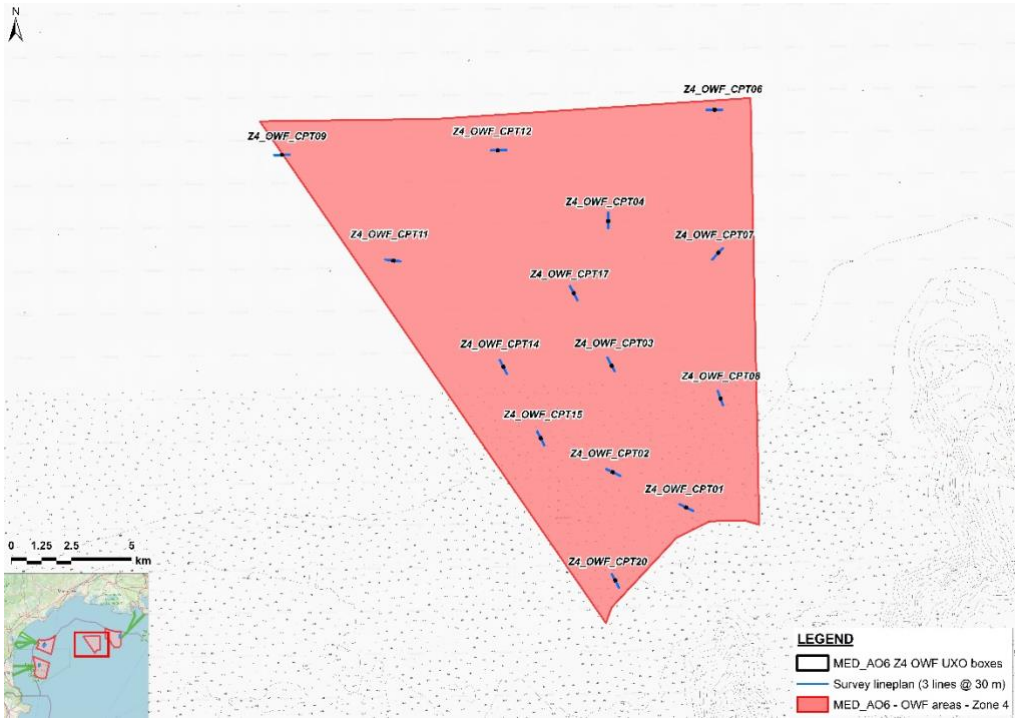


Figure 2-6: MED_AO6 Zone 4 OWF UXO survey plan.

2.3. UXO RISK ANALYSIS

During the survey planning of this project, 6-Alpha associates conducted a risk analysis of the presence of UXO elements in the MED_AO6 work area. The "Unexploded Ordnance Threat and Risk Assessment" document detailed a zonation of the work zone into three categories: Low, Medium and High risk. This zonation is presented in the figure below.

As agreed with the client, based on the risk presented by 6-Alpha in its study, it was established that:

- In areas whose UXO risk is Low or Medium, data acquisition for UXO detection would be performed with MBES, SSS and SBP.
- In areas with High UXO risk, data acquisition for UXO detection would be performed with MBES, SSS and MAG.

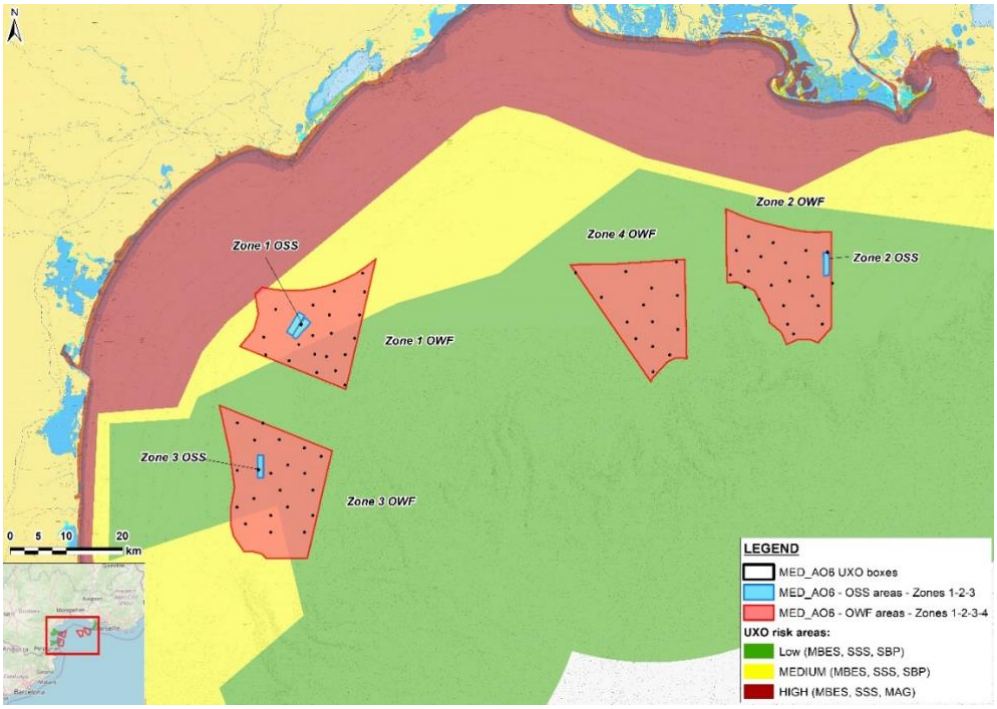


Figure 2-7: UXO risk analysis for the MED_AO6 OWF and OSS survey areas.

It is observed in the zonation that the working areas of the OWF Z1-Z2-Z3-Z4 and OSS Z1-Z2-Z3 are located in low and medium UXO risk areas.

3. SURVEY CONTROL

3.1. GEODETIC PARAMETERS

3.1.1. Survey datum

These parameters are detailed below.

Table 3: Datum parameters table

DATUM	
Survey Datum:	WGS 84
Spheroid	GRS 1980
Semi-Major Axis (a)	6378137.000000000
Semi-Minor Axis (b)	6356752.314245179
Inverse Flattening (1/f)	1/298.257223563

Table 4: Projection parameters table.

PROJECTION	
Projection	UTM
False Easting	500000
False Northing	0
Latitude of Origin	0º00’00.000000’’
Central Meridian	3º00’00.000000’’
UTM Zone	31 N
Scale Factor on CM	0.9996
Units:	Meters

3.1.2. Vertical datum

The vertical datum used in the QINSy software is Bathyelli v2.0 ZH geoid published by the SHOM in December 2018. The Bathyelli v2.0 ZH (SHOM 2018) is a surface based on the GRS 1980 spheroid, and it is a set of surfaces each of which defines the separation of one vertical datum from the WGS84 ellipsoid to the vertical maritime reference Hydrographic Datum or Hydrographic Zero. These ellipsoidal heights are given in meters.

This geoid covers the intersection between the SHOM tidal model and the different tidal zones of France.

For the survey area MED_AO6 Z4, the corrections to hydrographic zero are made by tidal observations of the port of Marseille (Corniche) (43º16’ N – 05º 21’ E). For informative purposes, the difference between the hydrographic zero and the LAT reference level for this port is 0.27 m, according to the study by SHOM "*Références Altimétriques Maritimes. Ports de France métropolitaine et d'outre-mer"* of 2019.

3.1.3. Tidal reduction

To carry out the survey as accurately as possible, Tecnoambiente is receiving MarineStar PPP corrections by satellite signal. When using an accurate GNSS system, the tidal corrections are carried out in real-time through QINSy computations, as it is shown in the following figure.

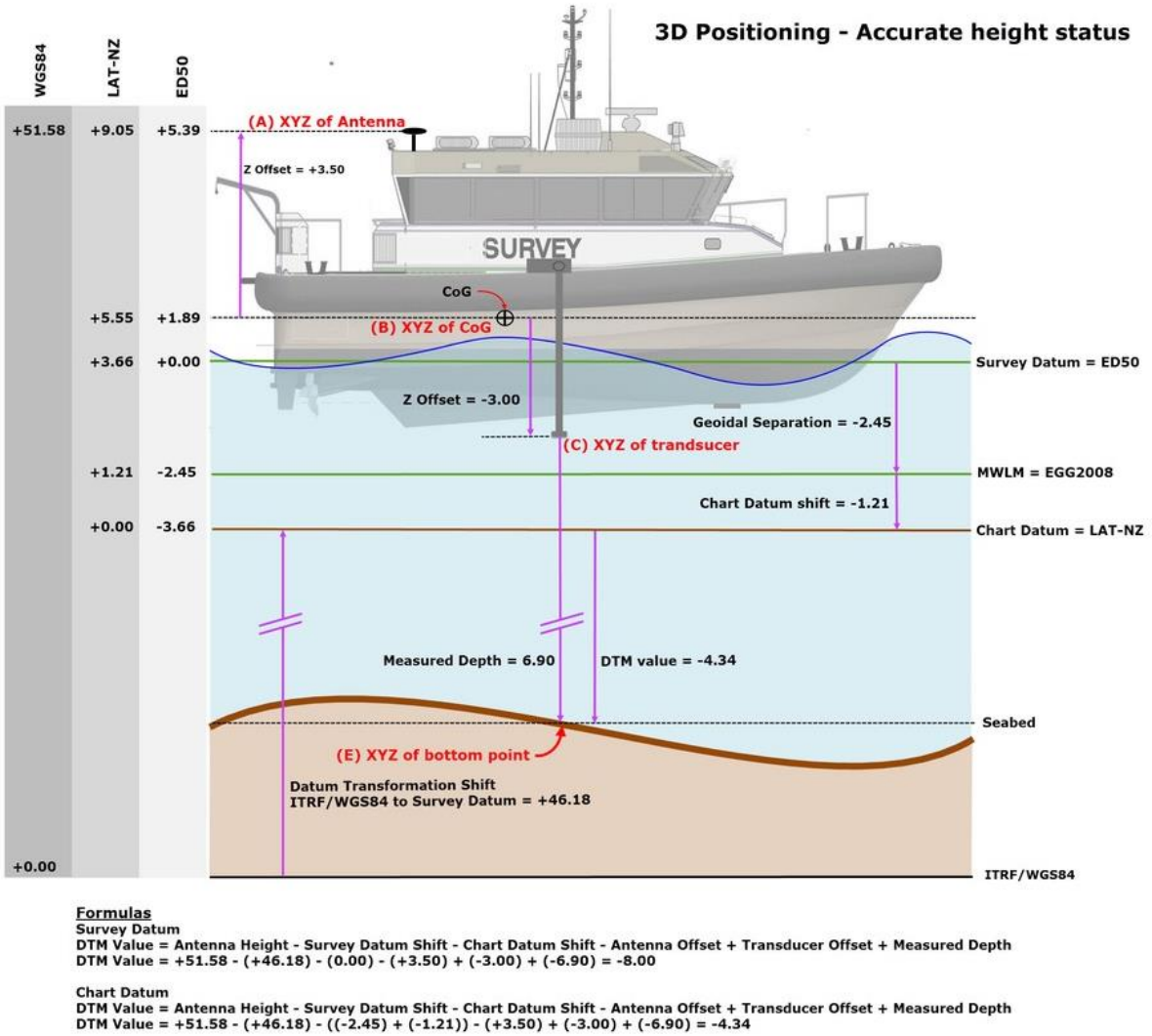


Figure 3-1: QINSy's method for accurate tide calculation.

In the event that corrections drop out they can be applied in post processing.

4. QA/QC CHECK

The processed values obtained from the onboard processing team during the survey were checked before the ALARP certificate phase. This quality control check of the input data validated the quality of the processing method.

Below are presented the QA/QC checks made for the measurements:

- QC0: Check of the geophysical value
- QC1: Check of the sensor position
- QC2: Check of the altitude of sensor and dynamic coverage
- QC3: Check of the noise
- QC4: Check of the speed and sampling frequency

5. METHODOLOGY

5.1. MBES BATHYMETRY

5.1.1. Data acquisition

The main objective of the MBES data acquisition is to identify pUXO in the ALARP box areas and buffer zones, therefore, the total coverage of the study area was not necessary. Due to this the project lines have been designed with a spacing of 30 meters.

During the data acquisition, the vessel's master must follow the previously programmed routes of the project lines, governed by the indications of the computer screen (Helmsmann indicator), which is shown, by means of visual and audible alarms, when it separates from its course more than a specified amount (variable according to weather conditions in the area, but never more than 2.5 metres from the theoretical line), and also when there is a problem in a peripheral, such as the loss of GPS corrections.

While the master follows the navigation lines, the acquisition module of the hydrography program captures all the position data sent by the GPS, as well as the soundings sent by the multibeam sounder for each transmission pulse, as well as the values of the heading, wave height, roll and head angles sent by the MRU.

Parallel to the data entry, the data acquired by the equipment and peripherals is synchronized. This process is carried out by QINSy itself, complemented by the input of the time and the pulse per second (PPS) provided by the MRU, so that all the data is time synchronised.

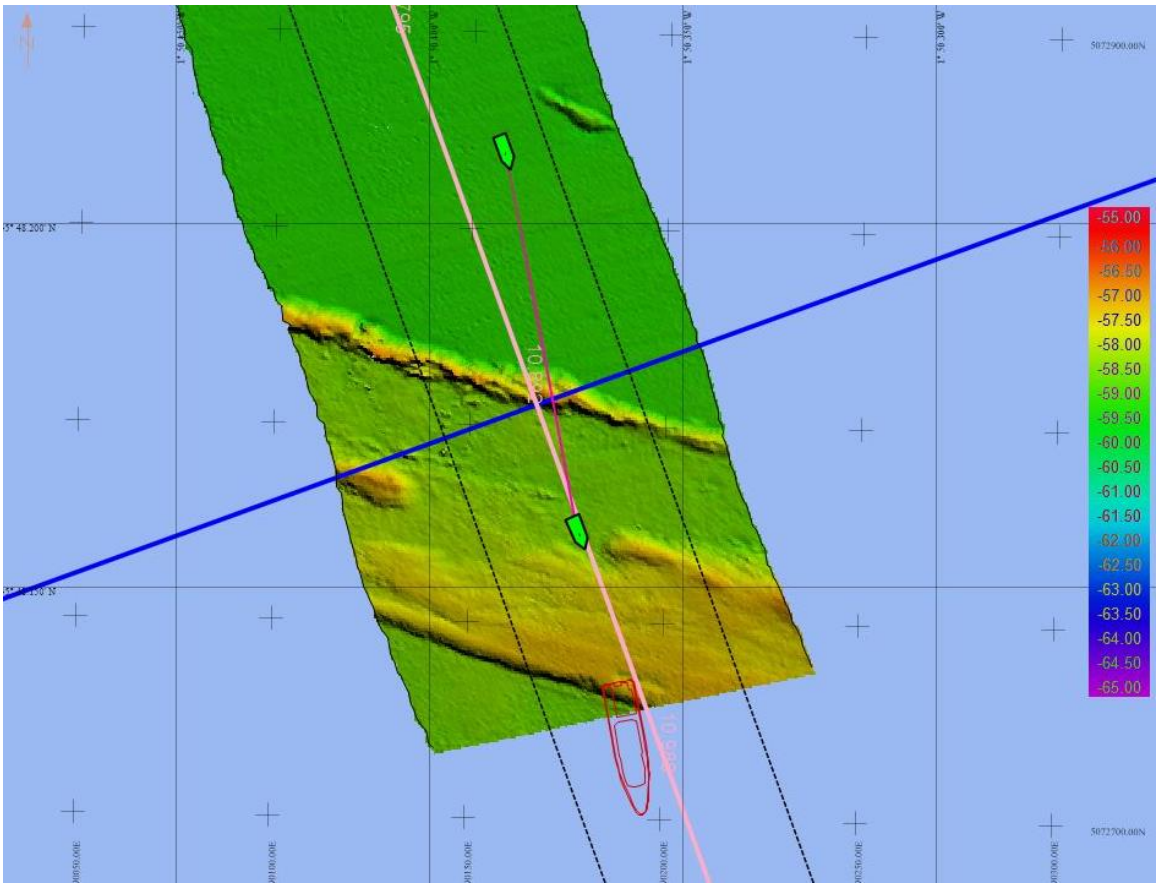


Figure 5-1: MBES bathymetry data acquisition with the QINSy software.

5.1.2. Data processing

A single head Kongsberg EM 2040 high resolution MBES system that is permanently installed on the Geo Focus vessel was used to produce digital terrain models (DTMs).

Along the processing phase of the acquired data, the lines on the screen are processed in order to manually match the height of the bathymetric lines and also correct the noise that appears in the records, noise produced by multiple factors such as, multipath in position, air bubbles, motor interference of the vessel etc. in the digital register of soundings.

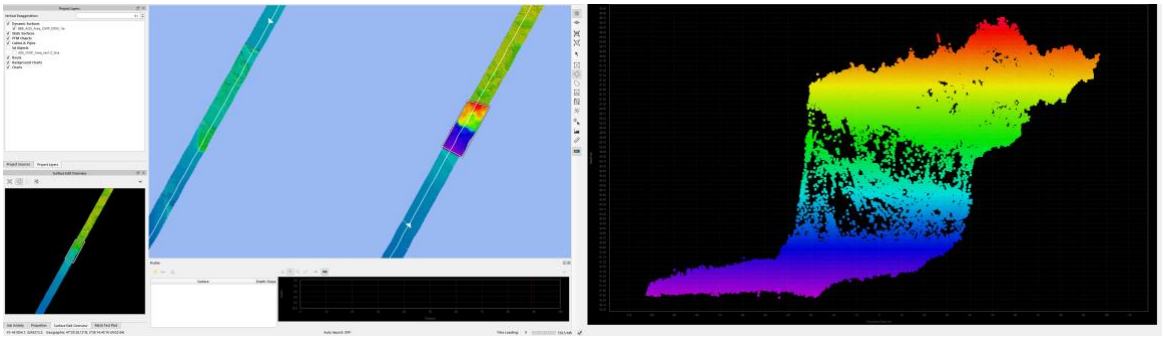


Figure 5-2: Processing screen of MBES bathymetry data with the Qimera software.

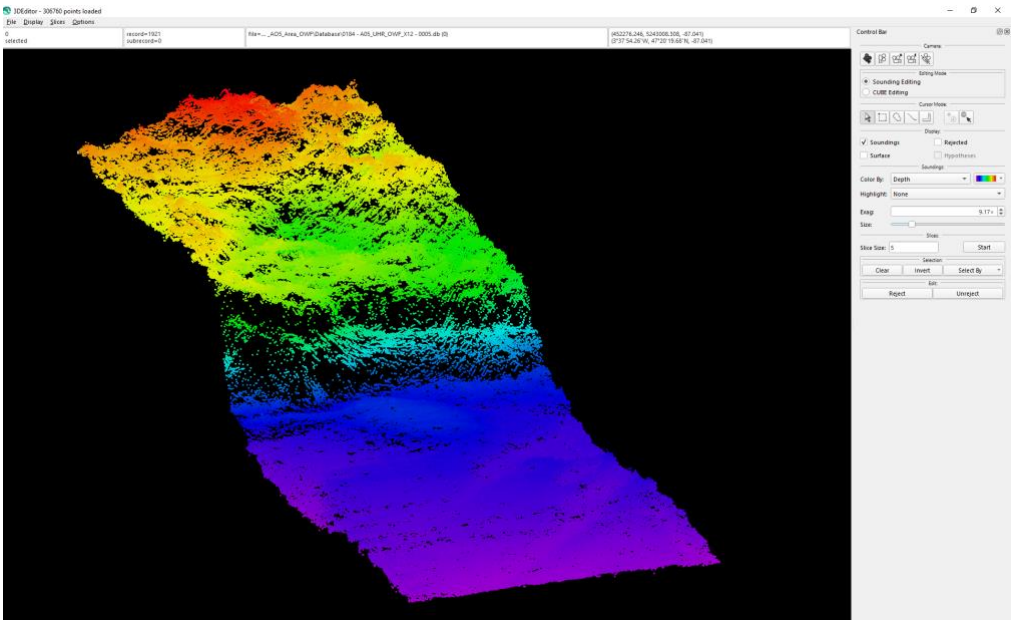


Figure 5-3: 3D image of the MBES bathymetry processing.

Once the possible existing errors in the records have been deleted, a digital model of the terrain with 0.5 x 0.5 m grid size has been made with a minimum cell size to obtain the maximum resolution of the background.

The general MBES processing workflow is presented in the following figure.

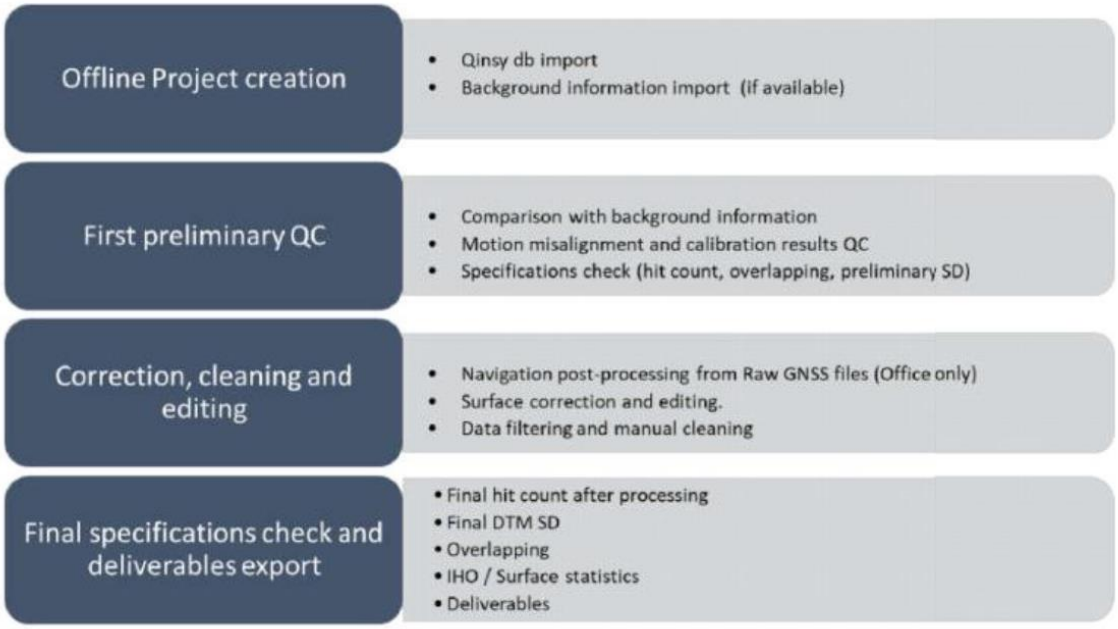


Figure 5-4: MBES bathymetry processing overview.

5.1.3. Target picking

The target picking was done using a GIS platform to detect and digitize the contacts present over the seabed surface.

5.2. SIDE SCAN SONAR

5.2.1. Data acquisition

The objective of this phase of data acquisition is the detection of possible sonar targets lying on the seabed. Due to the total coverage requirements of the seabed within each of the UXO boxes, a survey line spacing of 40 metres was utilised.

A side scan sonar system comprises a processing unit connected through a cable to a wet unit that transmits and receives acoustic energy. Side scan sonar can determine seabed morphology and configuration by means of acoustic signals. It can also determine its composition, identifying different seabed strata as hard (rocky or consolidated), soft or sedimentary, as well as identifying areas of seagrass.

Side scan sonar systems can work in different frequency ranges: systems working in high frequencies, (between 500 kHz and 900kHz) offer higher resolution but lower ranges, with systems working in low frequencies (100 kHz), offer lower resolution but higher ranges. For this survey, a frequency of 900KHz was utilised. The reflection of the signal coming from the seabed is detected by the same transducers, amplified and transmitted to the control unit, and recorded and displayed on the computer screen, providing an acoustic map. With this data, it is possible to identify different seabed morphologies, together with the visualization of any seabed objects.

When the vessel is underway, the winch operator can start deploying cable until the fish gets to the desired working depth of about 6 m above the seabed.

5.2.2. Data processing

Once the SSS data were acquired and then exported into JSF format, the files are imported into the SonarWiz 7 software. Channels 3 and 4 were used for recording the high frequency data.

After data importation into the SonarWiz 7 software, an initial navigation correction was made for each imported file, applying smoothing filters to avoid errors in the heading of the tow fish. The track position was smoothed using a mean value of 300 pings.

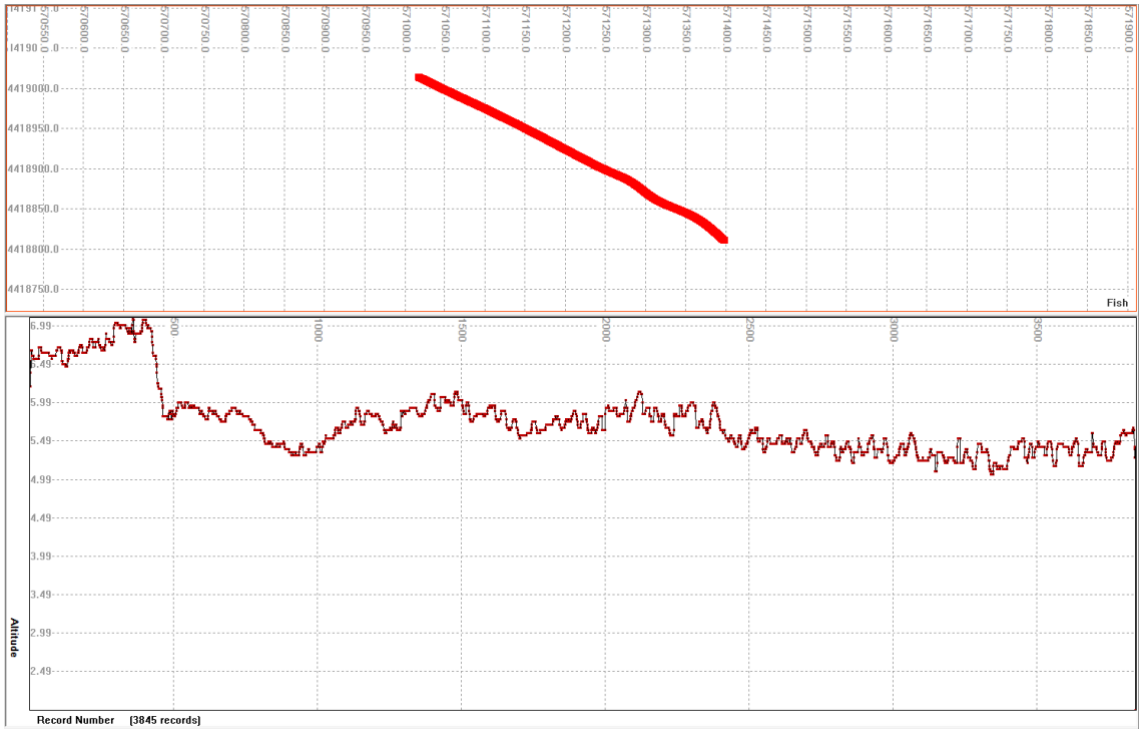


Figure 5-5: Navigation editor in SonarWiz 7.

After the aforementioned corrections were implemented, the water column for each file was eliminated, by applying the bottom-tracking acquired during the survey, as shown in Figure 5-6. If bottom-tracking of the tow fish failed during the survey, it was done automatically by applying filters or by drawing the seabed manually during post-processing. This enables slant range corrections for the digital data to be as accurate as possible.

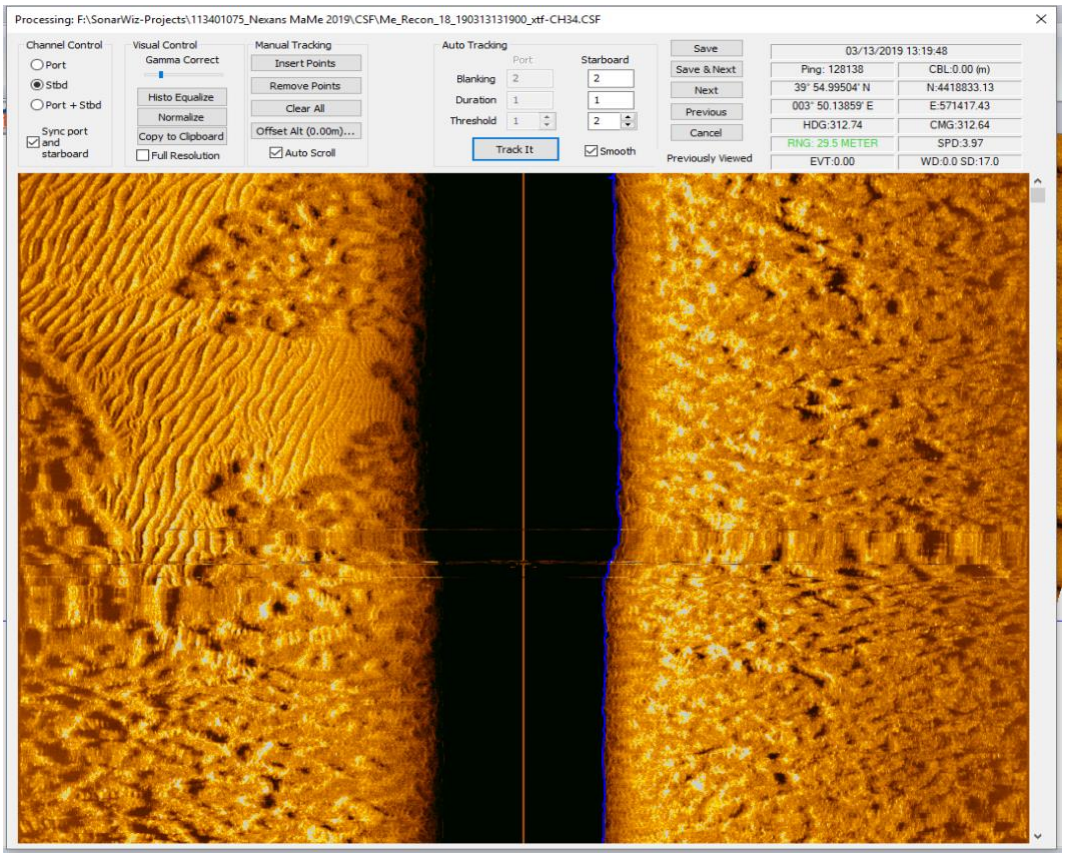


Figure 5-6: Bottom tracking processing drawn in blue in the SonarWiz software.

The following steps during SSS processing in the SonarWiz 7 software are the application and enabling of the EGN filter, and the enabling of the de-stripe filter.

At this point during data processing, a processed MBES geotiff is imported into the project. Using the MBES information, rotations to the SSS file are applied, in order to match feature orientations seen in the MBES data. Where necessary, a move offset can be applied to the SSS file, in order to match features within the MBES data.

The final processing step is the export of the sonar files into a GIS software package, where all of the information is integrated and a sonar mosaic is generated. This is carried out by converting the JSF files into 32bits RGB Geotiff images, to obtain georeferenced images of the processed data, with a resolution of 0.1 m.

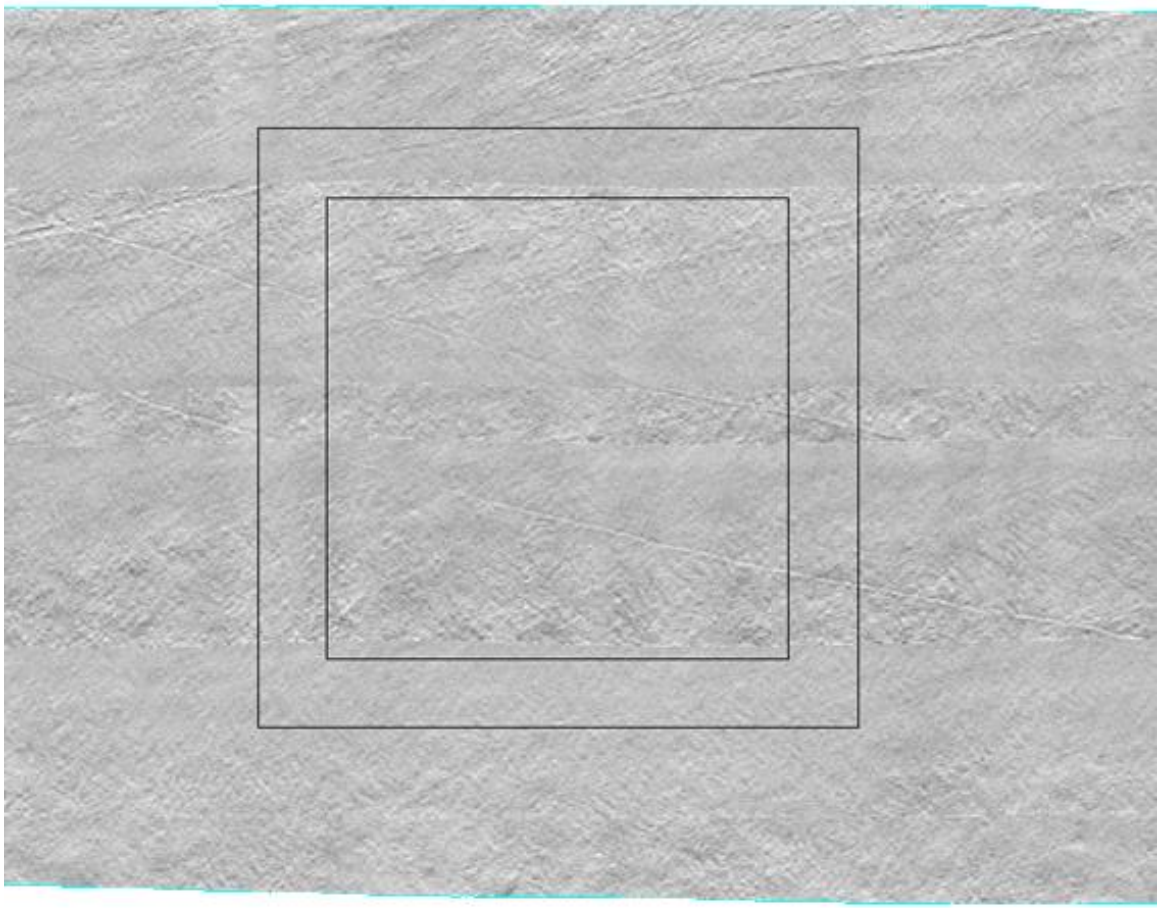


Figure 5-7: Example of an UXO box 32bits RGB SSS Mosaic with a resolution of 0.1 m.

5.2.3. Target picking

The picking of the targets was carried out on the sonograms with the “Digitizing View” tool.

When an object is detected, it is targeted, and its width and length is directly measured. The height is calculated based on the shadow on the sonogram. These measurements are performed on the processing software (SonarWiz).

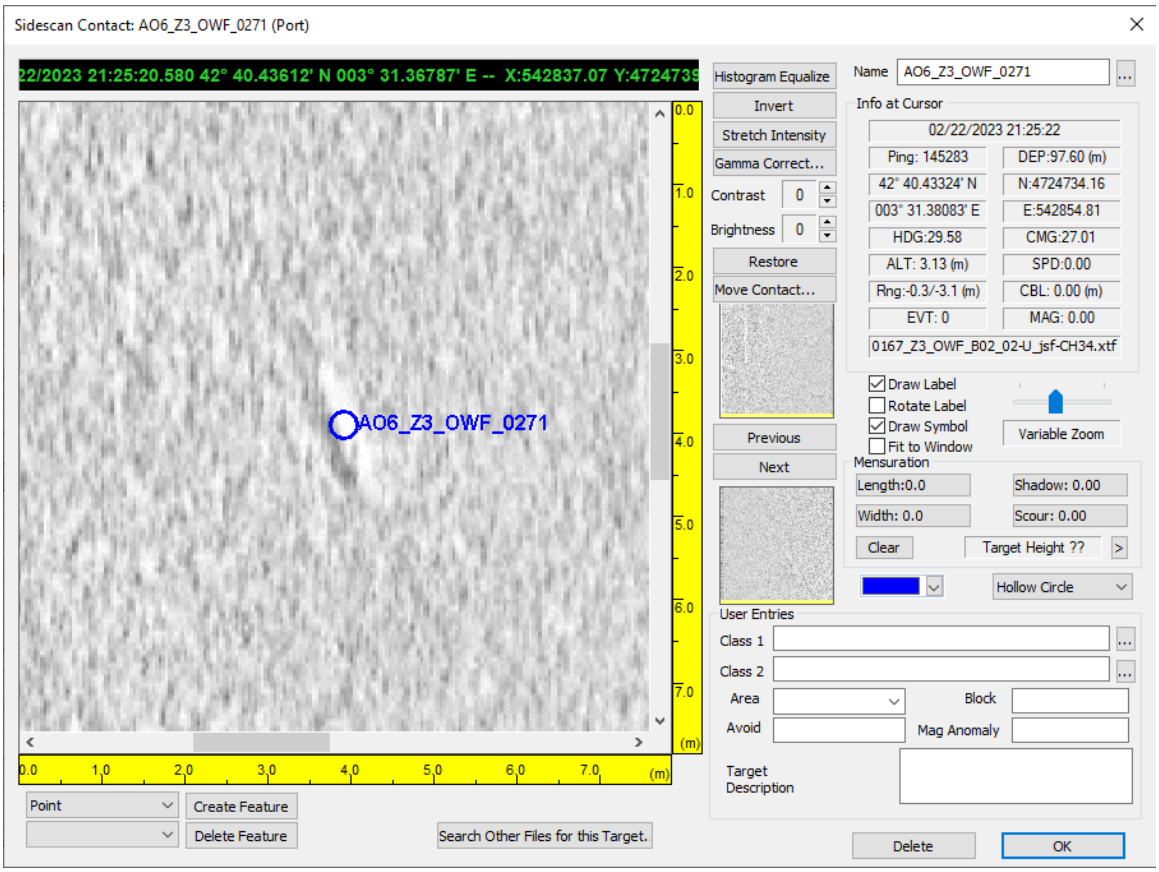


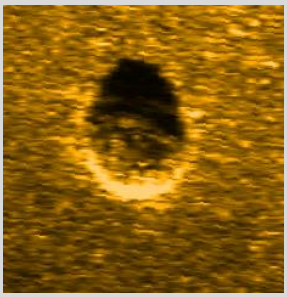
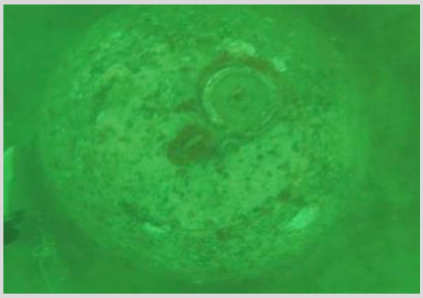
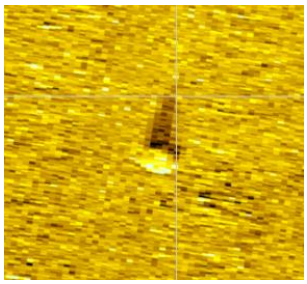
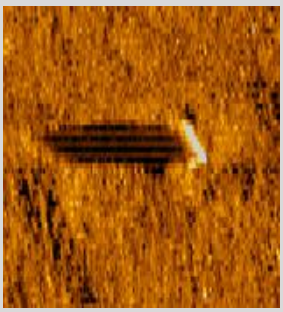
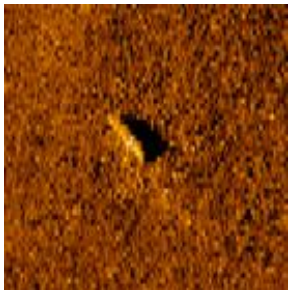
Figure 5-8: SonarWiz targeting tool.

Detection has been performed for all the objects/anomalies/obstructions that were detected during the observation of the sonograms. To prevent to pick too many targets of geological origin, it has been decided to pick:

- Objects that are isolated within a quiet and/or sandy environment.
- Objects that have an unusual shape or that looks hand-made or non-natural.

Below, in Table 5, a bibliographic comparison of detected sonographies is presented, showing the similarities between boulders and UXO.

Table 5: Comparison of sonar image of UXO and boulders using SonarWiz.

Sonar image	Photography	Identification
		**RMAK Mine** ***(Cherbourg)***
		**Boulder** ***(Normandie)***
		**BM1000** ***(Normandie)***
		**Boulder** ***(Normandie)***

5.3. SUB-BOTTOM PROFILER

5.3.1. Data acquisition

The objective during SBP data acquisition was to detect possible UXO below the seabed. Due to this, the project lines were designed with a line spacing of 30 metres.

An SBP system comprises a processing unit, which is connected through a cable to the equipment that transmits and receives acoustic energy. Seismic systems operate according to the principle by which transmitted seismic-acoustic energy affects an acoustic interface, being partially reflected by this surface. An acoustic interface is that area of the subsoil through which there is some contrast in acoustic impedance (acoustic impedance is defined as the product of the density of the medium by the propagation speed of compressional sonic waves (p waves)). Reflection is obtained by variations in acoustic impedance, which is a measure of the acoustic contrast of the materials on each side of the interface.

There are two properties that characterize any seismic system: penetration and resolution. These two properties have an inverse relationship:

- **Penetration**: Is the maximum depth at which a reflector can be detected. It depends on the power and frequency of the emitted signal; a lower frequency corresponds to a longer wavelength and greater penetration. At each interface, the amount of energy transmitted to the next decreases by an amount equal to that which has been reflected.

- **Resolution**: Is the minimum distance at which 2 consecutive reflectors can be identified, for a given frequency signal. The higher the frequency, the higher the resolution. A horizontal resolution can be considered when there are changes in the acoustic response in the horizontal plane.

SBP data was acquired using an Innomar SES 2000 compact, with a frequency of 8 kHz, 1 cycle of pulse, 20 m of sweep and a 4-8 Hz trigger rate. This SBP system was heave and

roll compensated. Navigation and real time sensor height were received directly from Qinsy. Data was recorded in 16-bit format.

5.3.2. Data processing

All sub-bottom profiler data processing was carried out using SonarWiz software. The files were heave and tidally corrected, to ensure that the SBP data matched up with corresponding MBES data. Frequency filtering and a TVG were also applied and then pre-processed SEGY files exported. SEGY files were then imported into Seisee software, for final QC. The SBP data were deemed to be of good quality, throughout the survey.

Onboard SBP processing and quality control workflow was performed as follows:

i. Importing raw files (.JSF files in the case of Edgetech equipment) or converting raw files to SEG-Y format, through SES Converter (in the case of Innomar compact) and import them into the SonarWiz software.
ii. Navigation Quality Control, looking for stable navigation, without peaks and gaps.
iii. Bottom tracking, Gain configuration and frequency filtering.
iv. Ticking off SBP lines against the online log, to make sure a complete data set was present
v. Tide and heave correction and verification, with a pre-processed bathymetric grid. With this bathymetric grid, the separation offsets of the SBP data were observed against the real multibeam seabed, and this was applied to give a 3D reference to the SBP data.

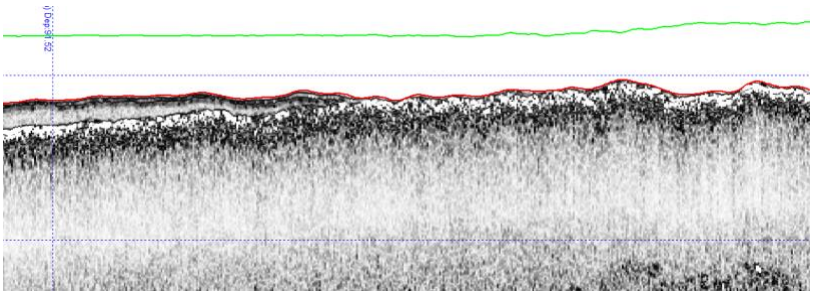


Figure 5-9: Example of a SBP profile before applying tides, heave and swell and referencing to a bathymetric grid.

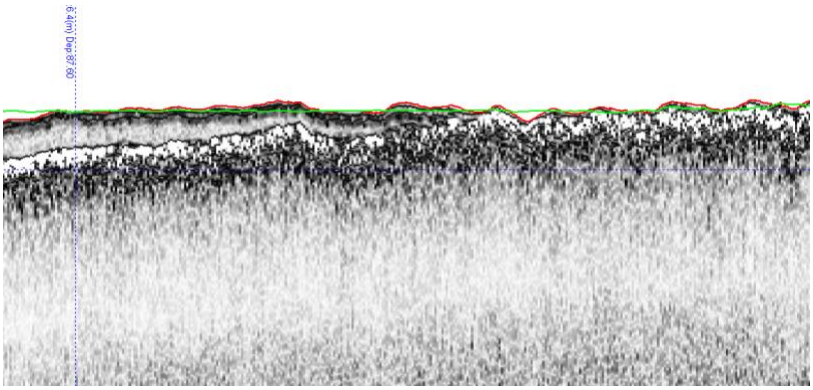


Figure 5-10: Example of a SBP profile after applying tides, heave and swell and referencing to a bathymetric grid.

5.3.3. Target picking

The processed profiles are then visualized in SonarWiz, where the dynamic color scale is adjusted, in order to visualize the data at greater depths by playing on with the contrasts. The "Target Picker" tool allows data acquisition by pointing points along the profiles.

The pointed data is then exported into a grid (x, y, z) and can be added in the map of the project. For each pointed target, a ".gif" file is exported in order to clearly see the picked target over the SBP profile.

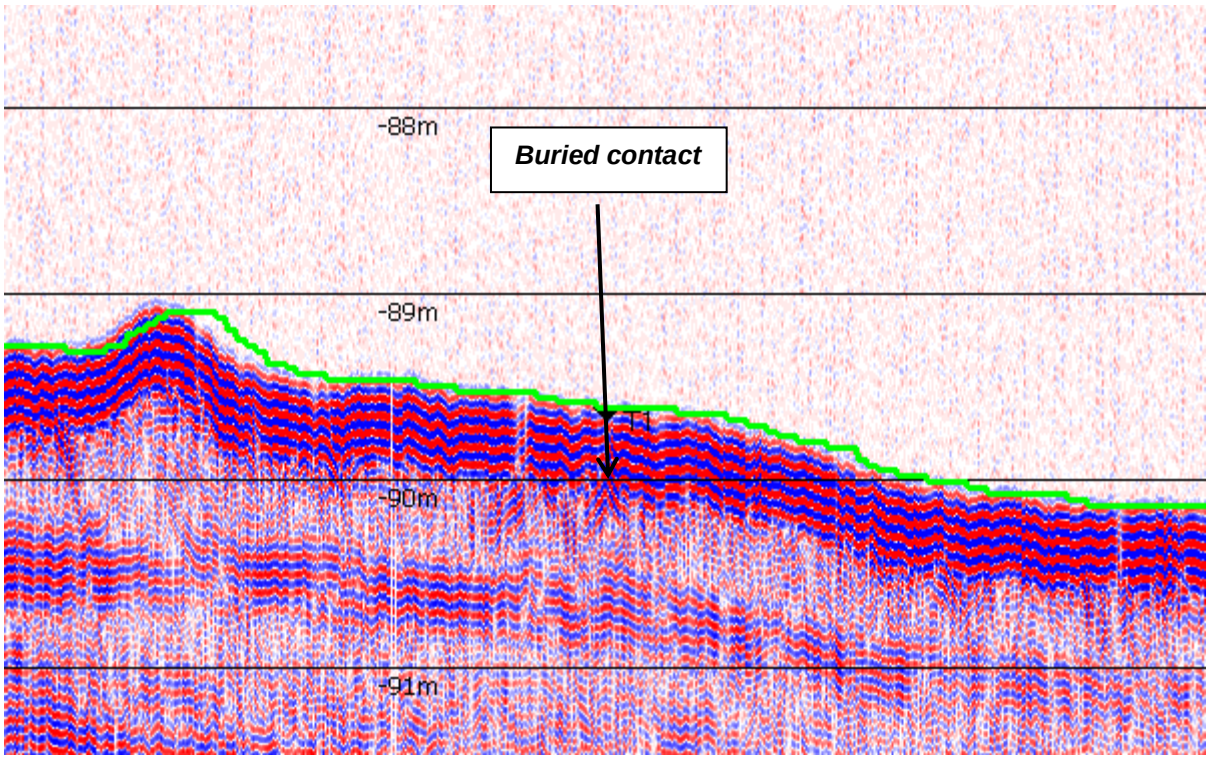


Figure 5-11: Target example along a SBP profile.

This analysis of the profile allows the identification of punctual objects, but not specifically ferromagnetic elements. It can therefore be difficult to distinguish anthropogenic elements from geological elements (boulders, gravel, coarser sediments, etc.).

It has been selected contacts that could be characteristic of buried punctual objects. Contacts causing refraction hyperbolas, particularly intense reflectors, isolated and contrasting within the surrounding sediments, atypical reflectors such as sloping or angular reflectors.

6. RESULTS

6.1. TARGET PICKING

Sidescan sonar anomalies were picked all along the sidescan sonar lines, and not only in the vicinity of the UXO boxes. Sidescan sonar anomalies are listed in the APPENDIX II – TARGET LIST.

6.2. DISCRIMINATION OF pUXO TARGETS

The identification of punctual objects has been made but cannot specify if there are ferromagnetic elements. It can therefore be difficult to distinguish anthropogenic elements from geological elements (boulders, gravel, coarser sediments, etc.).

Any anomaly can therefore correspond to a potential UXO

7. AVOIDANCE DISTANCES

Following the analysis, we are looking for as low as reasonably practicable (ALARP), areas that can be considered clear of any pUXO. The avoidance criteria has been defined following the UXO threat and risk assessment with geotechnical investigation risk mitigation strategy recognised and the desktop studies (**Ref. 01**):

Thus, the avoidance distance can be calculated as follows (Figure 7-1):

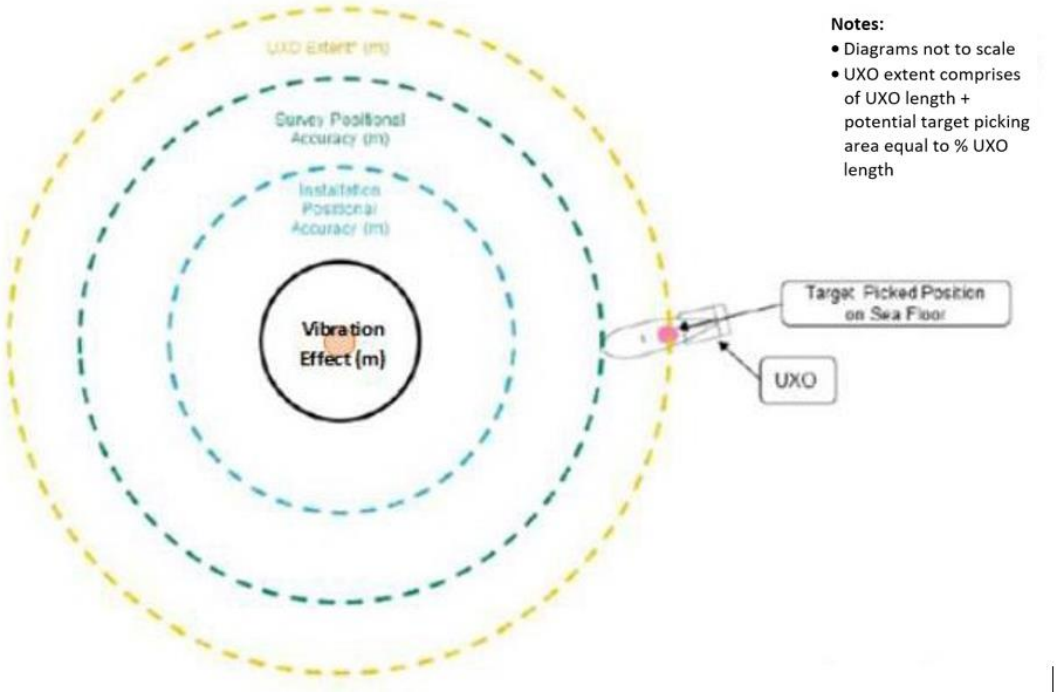


Figure 7-1: Avoidance distances.

Avoidance distance = Geotechnical tool width + Vibration effect distance + Geotechnical tool positioning accuracy + UXO survey accuracy + Ammunition length

The effect of the generation of seismic waves during vibro-driving or pile driving has to take in account in the case of geotechnical drilling or pile driving. The machines generate a wide variety of seismic waves (pressure, Rayleigh shear) (*Study report DRS17-164706-11171B, INERIS*) that can trigger UXO detonation. This effect should not be considered for other geotechnical work such as jack up or anchor installation.

For the **OWF area**, the **15 m buffer** has been applied as avoidance distance according to the document delivered by 6 Alpha Associates Limited (**Ref. 01**).

A safety buffer of 15 m is to be employed from any isolated anomaly.

This was achieved through geospatial processing by QGIS software.

First, the areas that could not be considered as white areas are mapped, grouping the pUXO targets (MBES, SSS and SBP contacts) and potential saturated areas. Afterwards, the "avoidance areas" are mapped with an avoidance zone of 15 meters (a 15 m safety buffer around the anomaly) away from all the potential UXO (pUXO) anomalies or any saturated or excluded areas. This avoidance area is also applied from the edge of the dataset inwards the center of the survey area.

Then the free space between these avoidance areas and the detection surface and the survey limits is mapped, and a workable area is obtained.

8. CONCLUSION

ALARP areas of 14.000 m^2 has been found for the 14 GI locations. An alternative location has been found for 8 positions and has been indicated in grey in Table 6.

Table 6: Final GI box locations.

ID	GI box	UTM X	UTM Y	Original coordinates and distance (m)
1	Z4_OWF_CPT01	608023.00	4756474.00	-
2	Z4_OWF_CPT02	604995.00	4757945.00	604992.54 4757934.09 34.02 m
3	Z4_OWF_CPT03	604897.00	4762366.00	604897.25 4762417.88 56.01 m
4	Z4_OWF_CPT04	604777.00	4768380.00	604777.82 4768418.01 35.13 m
5	Z4_OWF_CPT06	609200.00	4773007.00	-
6	Z4_OWF_CPT07	609318.00	4767063.00	609318.15 4767015.51 64.68 m
7	Z4_OWF_CPT08	609442.00	4760996.00	609441.14 4761018.26 20.92 m
8	Z4_OWF_CPT09	591227.00	4771128.00	-
9	Z4_OWF_CPT11	595831.00	4766737.00	595828.96 4766746.18 20.86 m
10	Z4_OWF_CPT12	600186.00	4771321.00	600235.88 4771324.30 48.31 m
11	Z4_OWF_CPT14	600422.00	4762319.00	-

ID	GI box	UTM X	UTM Y	Original coordinates and distance (m)
12	Z4_OWF_CPT15	601971.00	4759353.00	-
13	Z4_OWF_CPT17	603347.00	4765382.00	-
14	Z4_OWF_CPT20	605084.00	4753456.00	605082.83 4753417.90 42.80 m

9. REFERENCES

In accordance with:

- Letter the "*Inspection des poudres et explosifs*" of the French Ministry of Defence and the *"Direction générale du Travail*" of the French Ministry of Labour of September 18th, 2013, relating to pyrotechnic clearance carried out on civil land.
- Decree No. 2014-381 of March 28, 2014, regulatory part Art. R.733-1 to 16 and legislative part Art. L. 733-1 to 3.

In reference to:

- Decree No. 2005-1325 of October 26, 2005, amended from the Ministry of Defence relating to the safety rules applicable during work in the context of a pyrotechnic clearance site and the two implementing decrees.

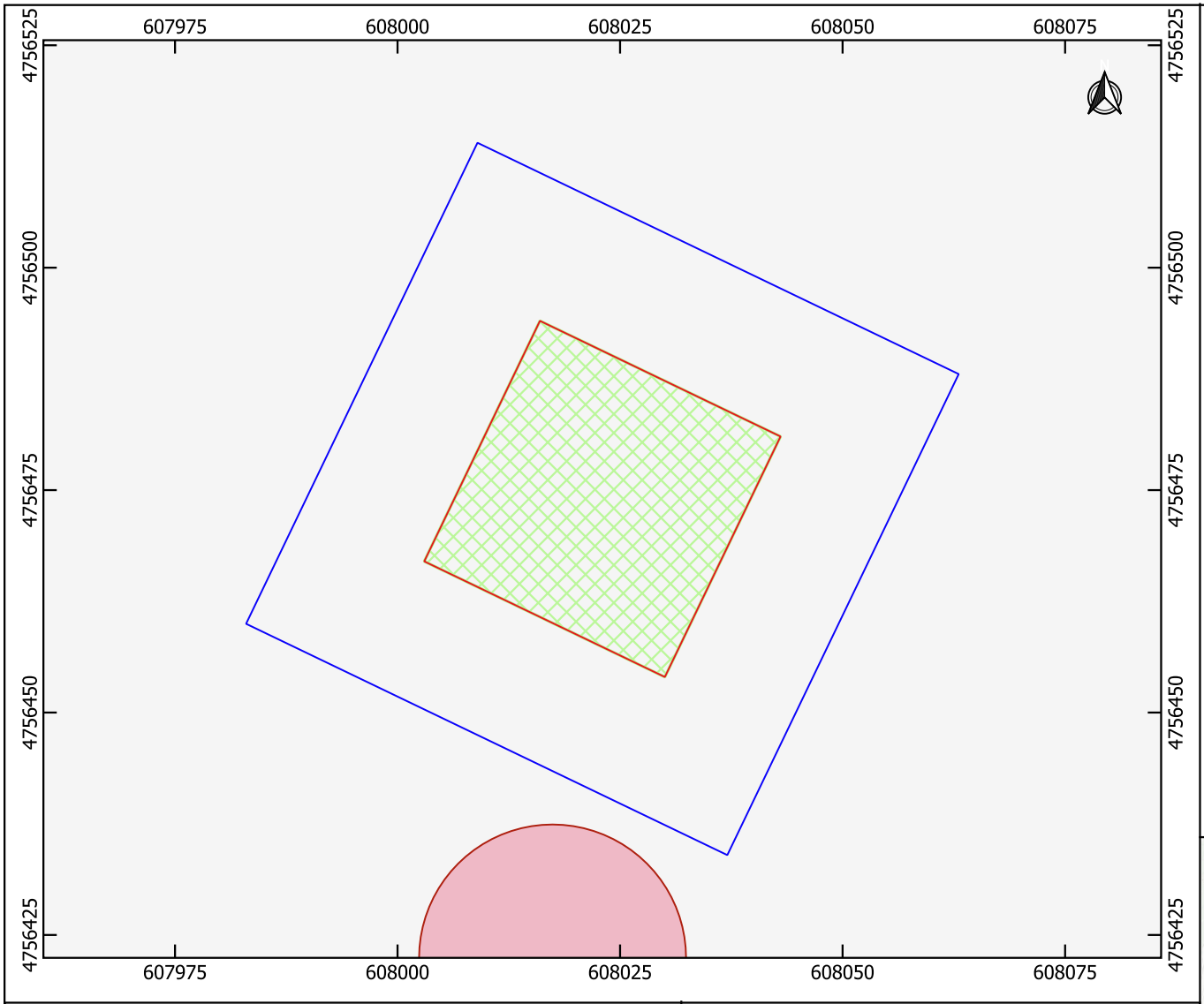
Ref.01. Unexploded Ordnance Threat and Risk Assessment: *9797_UXOTARA_AO6 Mediterranean_DNV_V1.*

Ref.02. Travaux sous-marins – Rapport final : RTE Midi Provence – Détection sous-marine Magnétométrique REV2 – Géomines

Ref.03. Etude historique pyrotechnique – RTE Projet Midi Provence – Géomines

Ref.04. 002GR17-JFM – Elenkhos Special Risks & consulting – Rapport d'évaluation des risques sur munitions non explosées

APPENDIX I – ALARP CERTIFICATE MAPS



ANNEXE A: AO6_Z4_OWF_CPT01
ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Original Location

x=608023,y= 4756474

OWF Zone 4

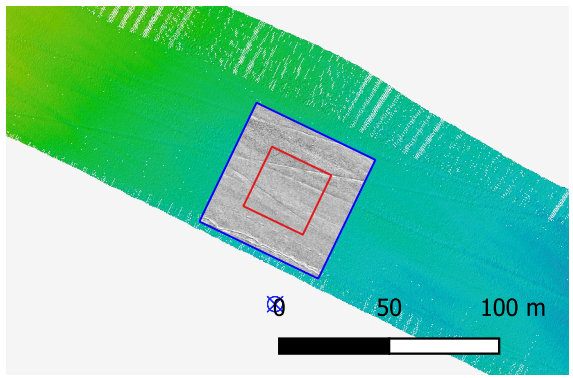
- Geotechnical Boxes OWF zone 4
- Survey extent

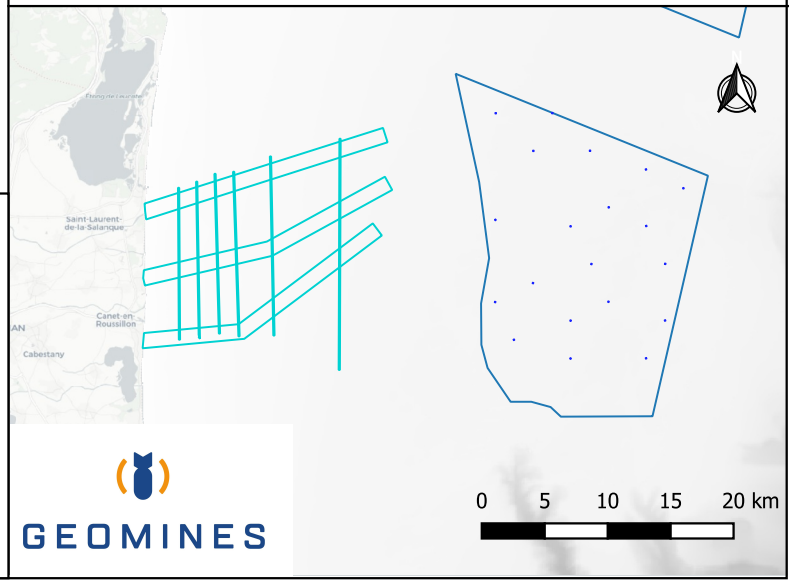
Concession

- Zone Parc AO6
- Zone corridors AO6

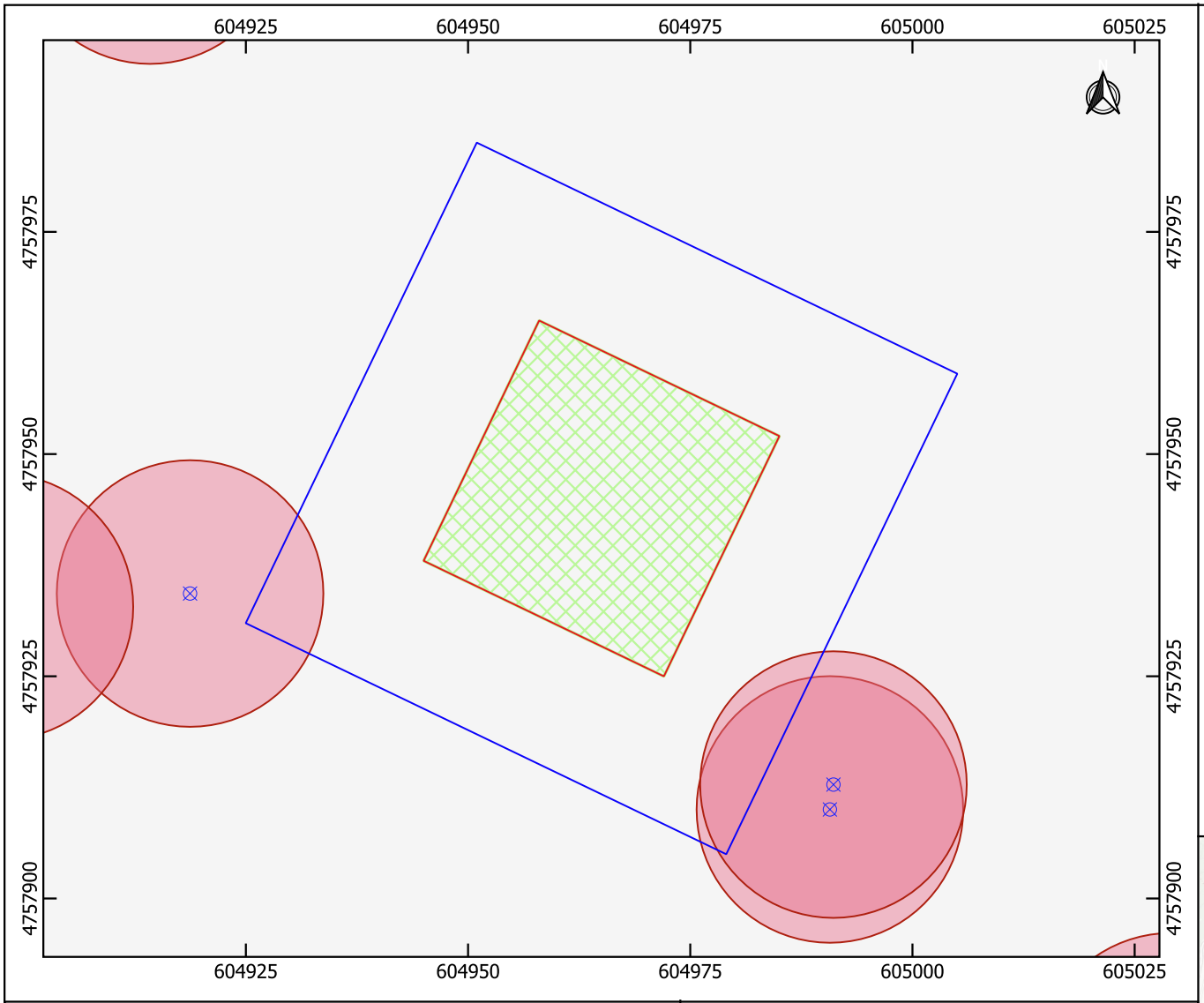
ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



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ANNEXE A: AO6_Z4_OWF_CPT02
ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Alternate Location

x=604965,y= 4757945

OWF Zone 4

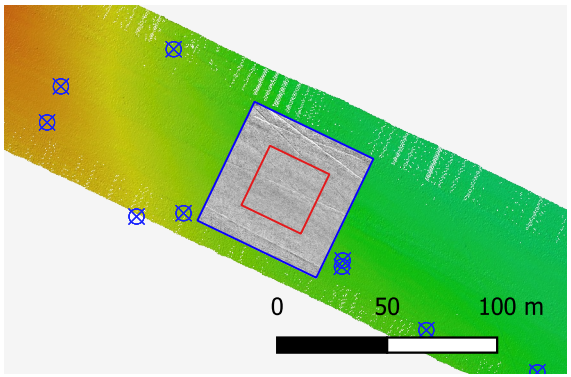
- Geotechnical Boxes OWF zone 4
- Survey extent

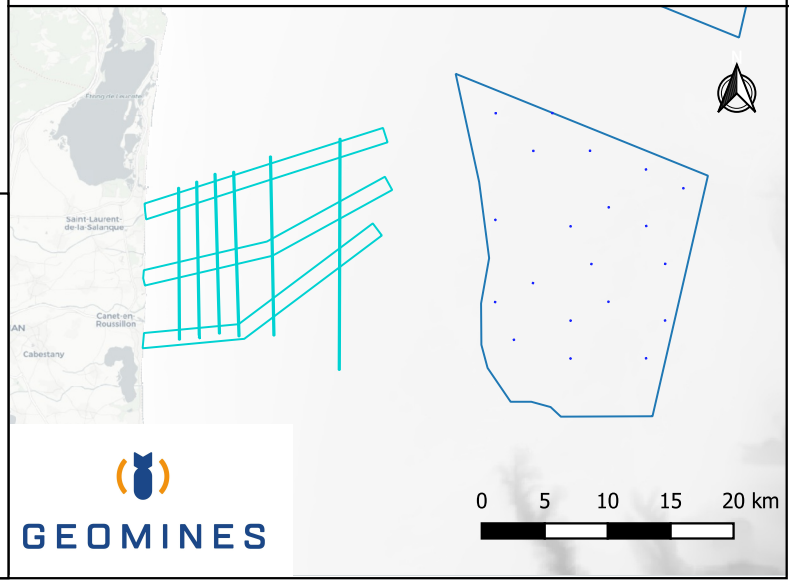
Concession

- Zone Parc AO6
- Zone corridors AO6

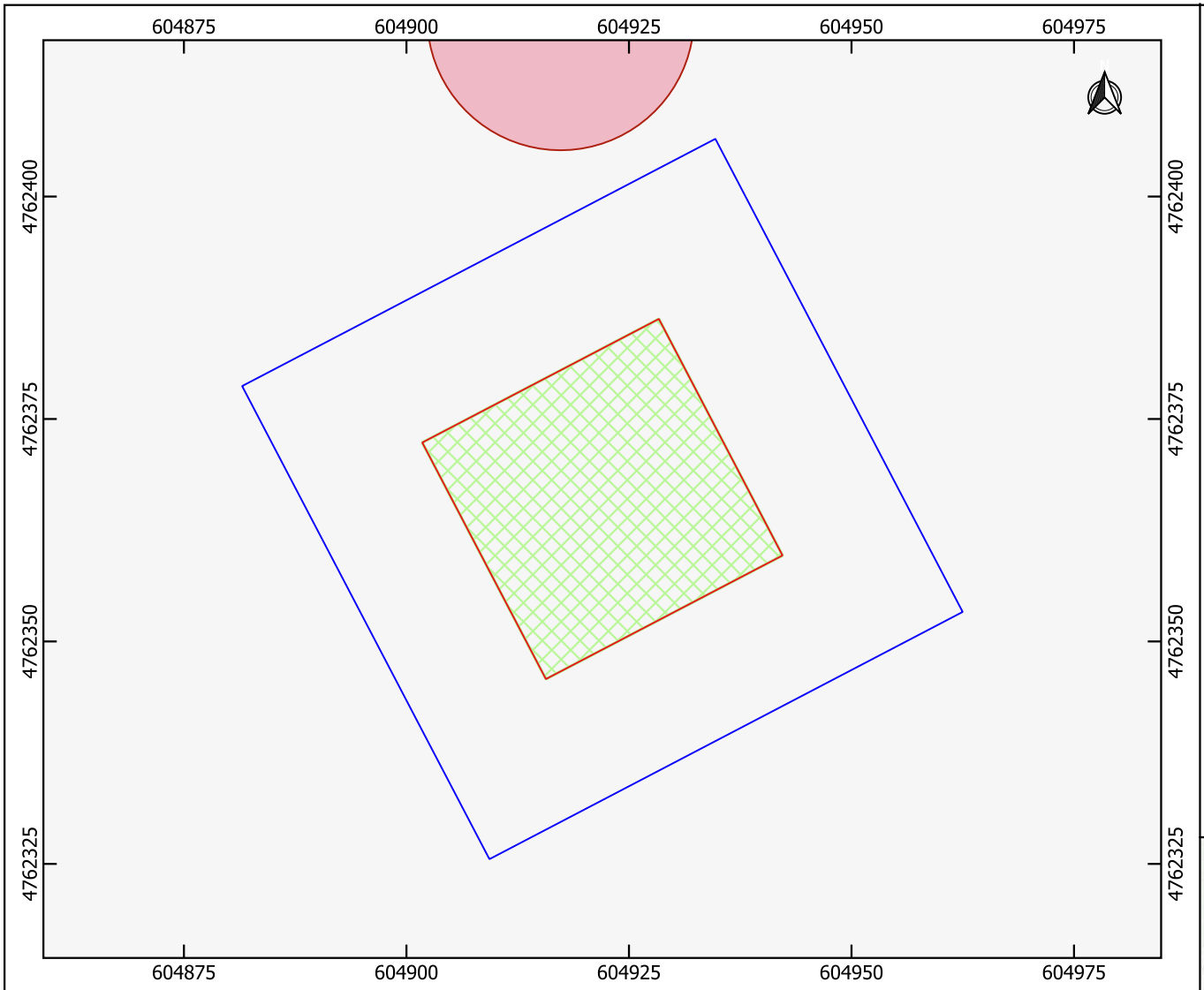
ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT03
ALARP CERTIFICATE GIS

Scale: 1/750
Date: 2023-03-20
Geodesy : WGS 84 - UTM 31N
Version: V0

0 10 20 30 40 m

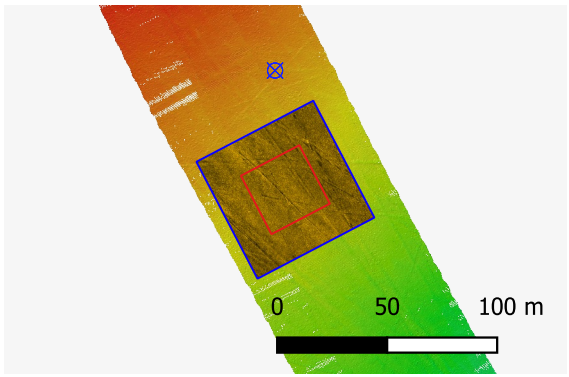
Alternate Location

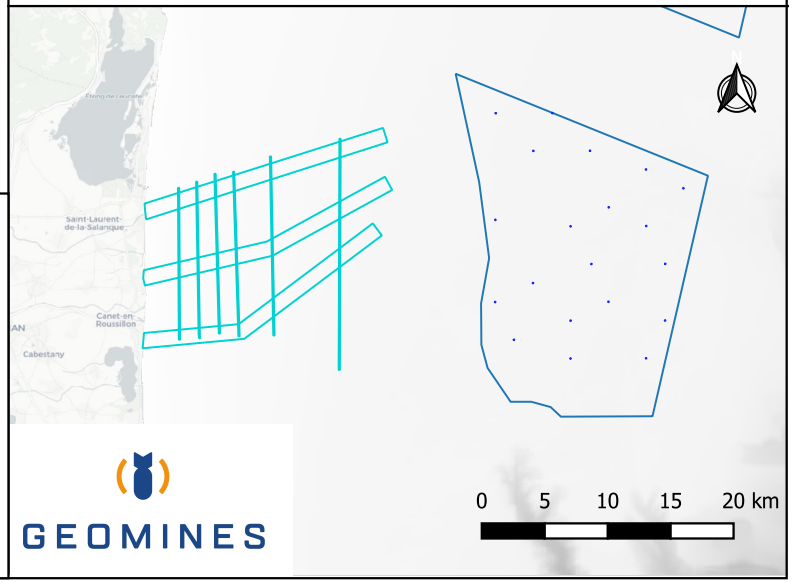
x=604922,y= 4762366

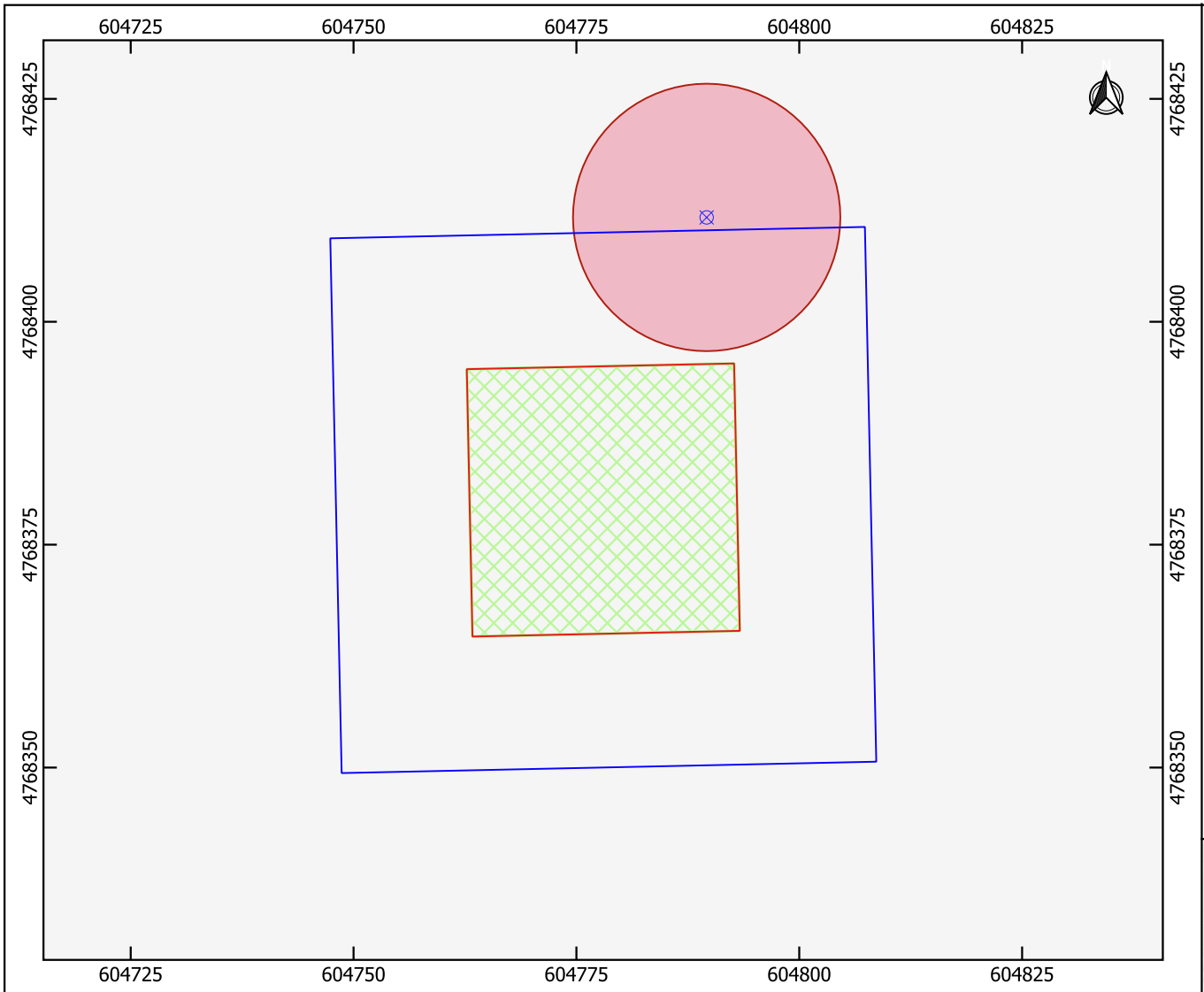
OWF Zone 4
- Geotechnical Boxes OWF zone 4
- Survey extent

Concession
- Zone Parc AO6
- Zone corridors AO6

ALARP
- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP







ANNEXE A: AO6_Z4_OWF_CPT04
ALARP CERTIFICATE GIS

Scale: 1/750
Geodesy : WGS 84 - UTM 31N
Date: 2023-03-20
Version: V0

0 10 20 30 40 m

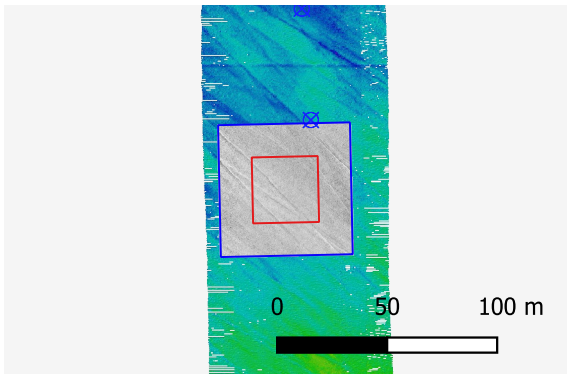
Alternate Location

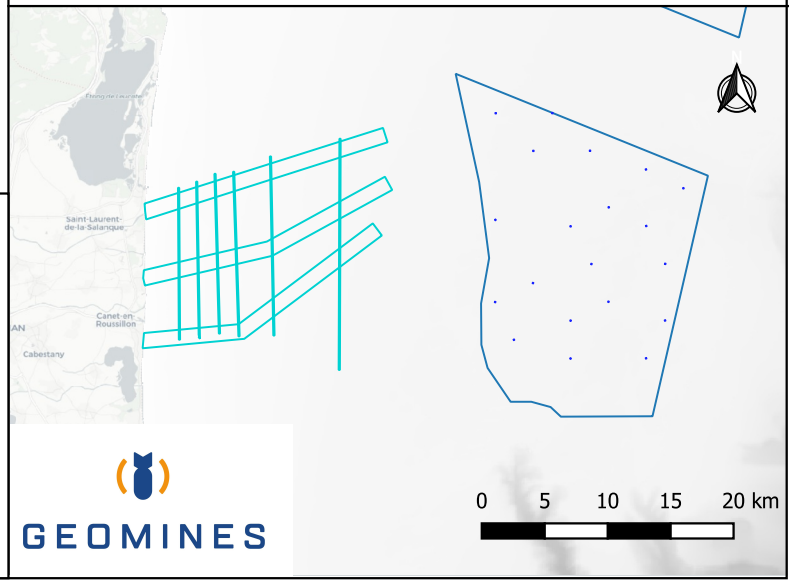
x=604778,y= 4768380

OWF Zone 4
- Geotechnical Boxes OWF zone 4
- Survey extent

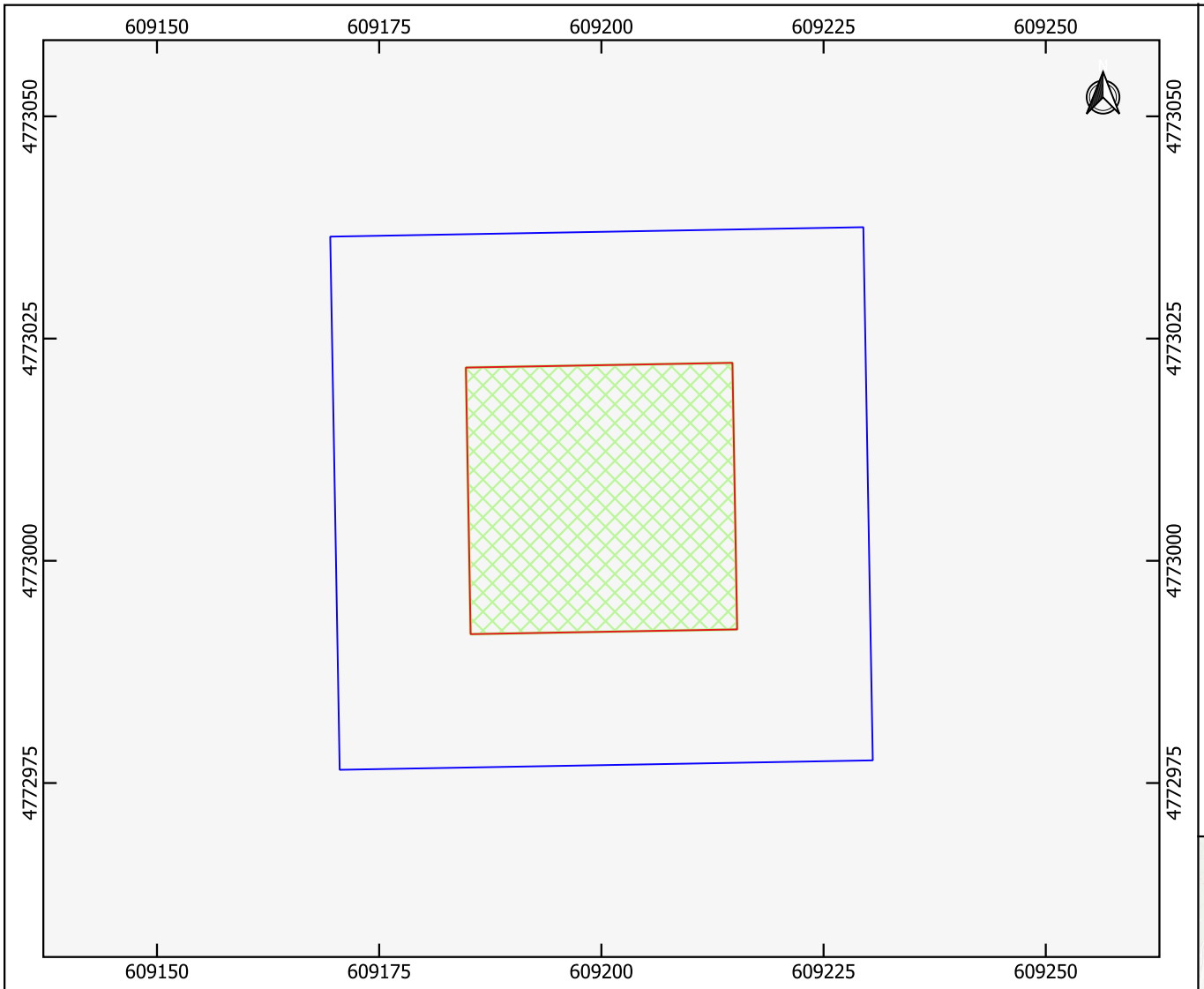
Concession
- Zone Parc AO6
- Zone corridors AO6

ALARP
- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT06
ALARP CERTIFICATE GIS

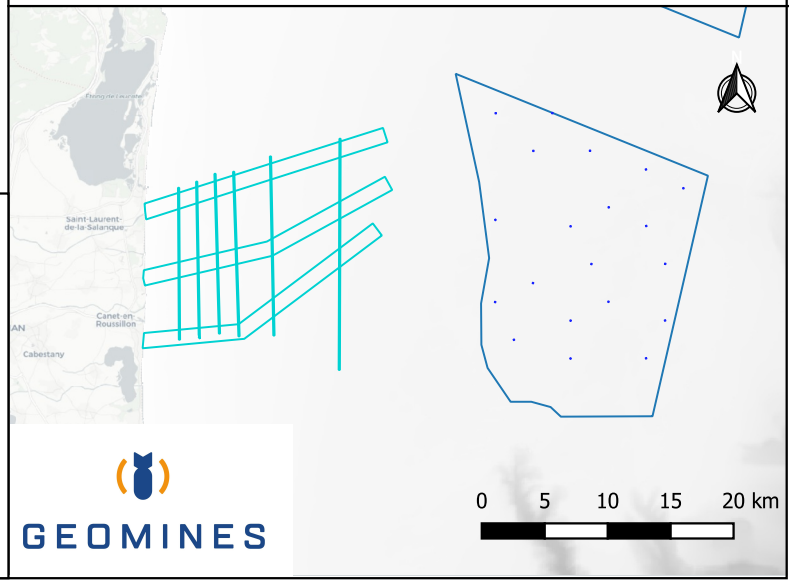
Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Original Location

x=609200,y= 4773007



OWF Zone 4

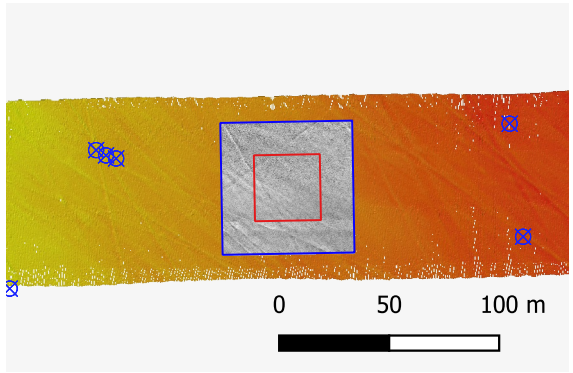
- Geotechnical Boxes OWF zone 4
- Survey extent

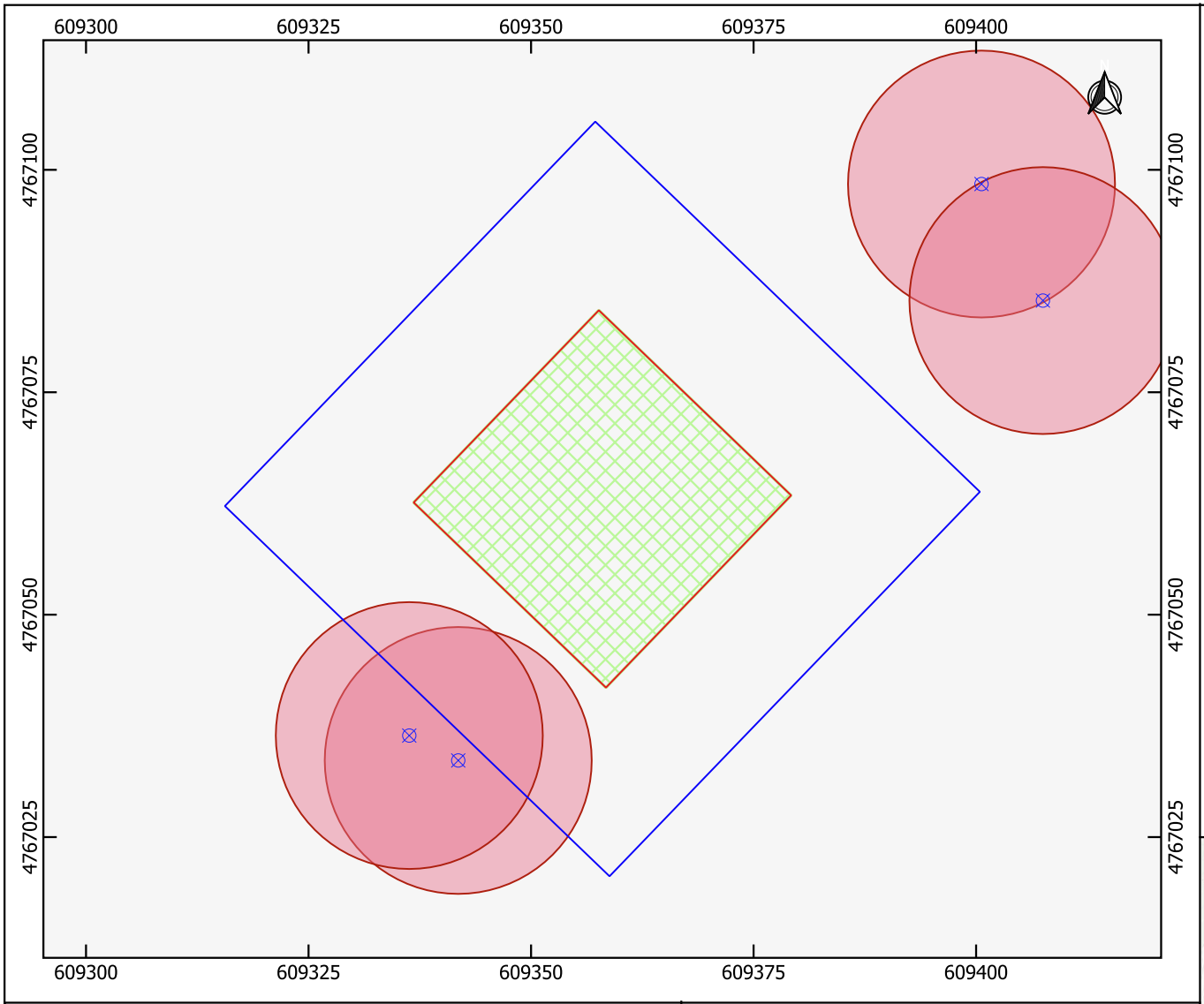
Concession

- Zone Parc AO6
- Zone corridors AO6

ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





OWF Zone 4

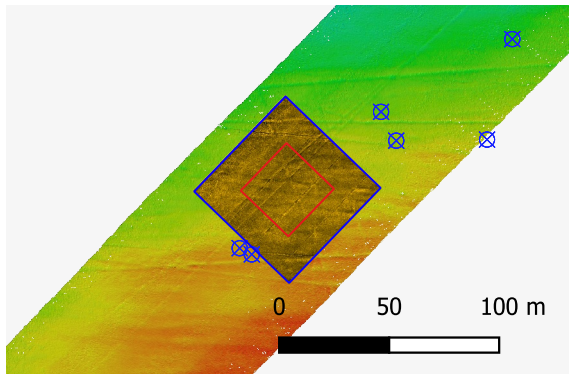
- Geotechnical Boxes OWF zone 4
- Survey extent

Concession

- Zone Parc AO6
- Zone corridors AO6

ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP



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ANNEXE A: AO6_Z4_OWF_CPT07 ALARP CERTIFICATE GIS

Scale: 1/750

Date: 2023-03-20

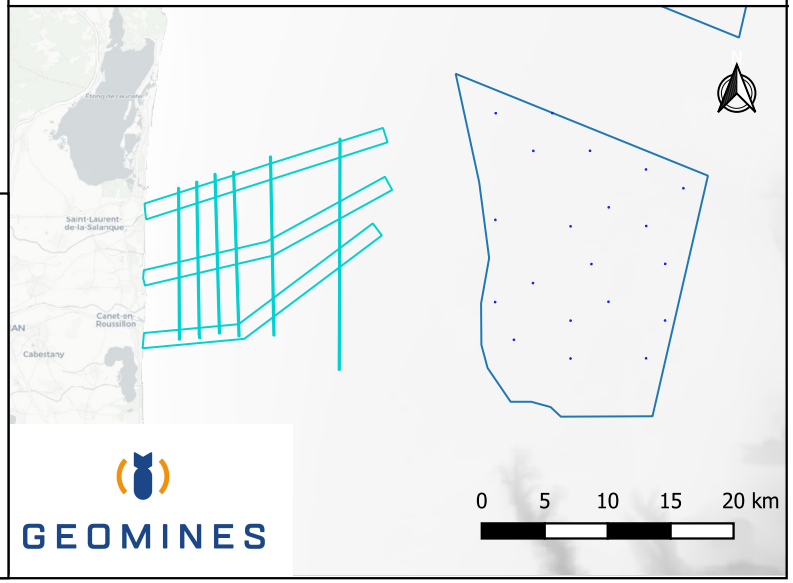
Geodesy : WGS 84 - UTM 31N

Version: V0

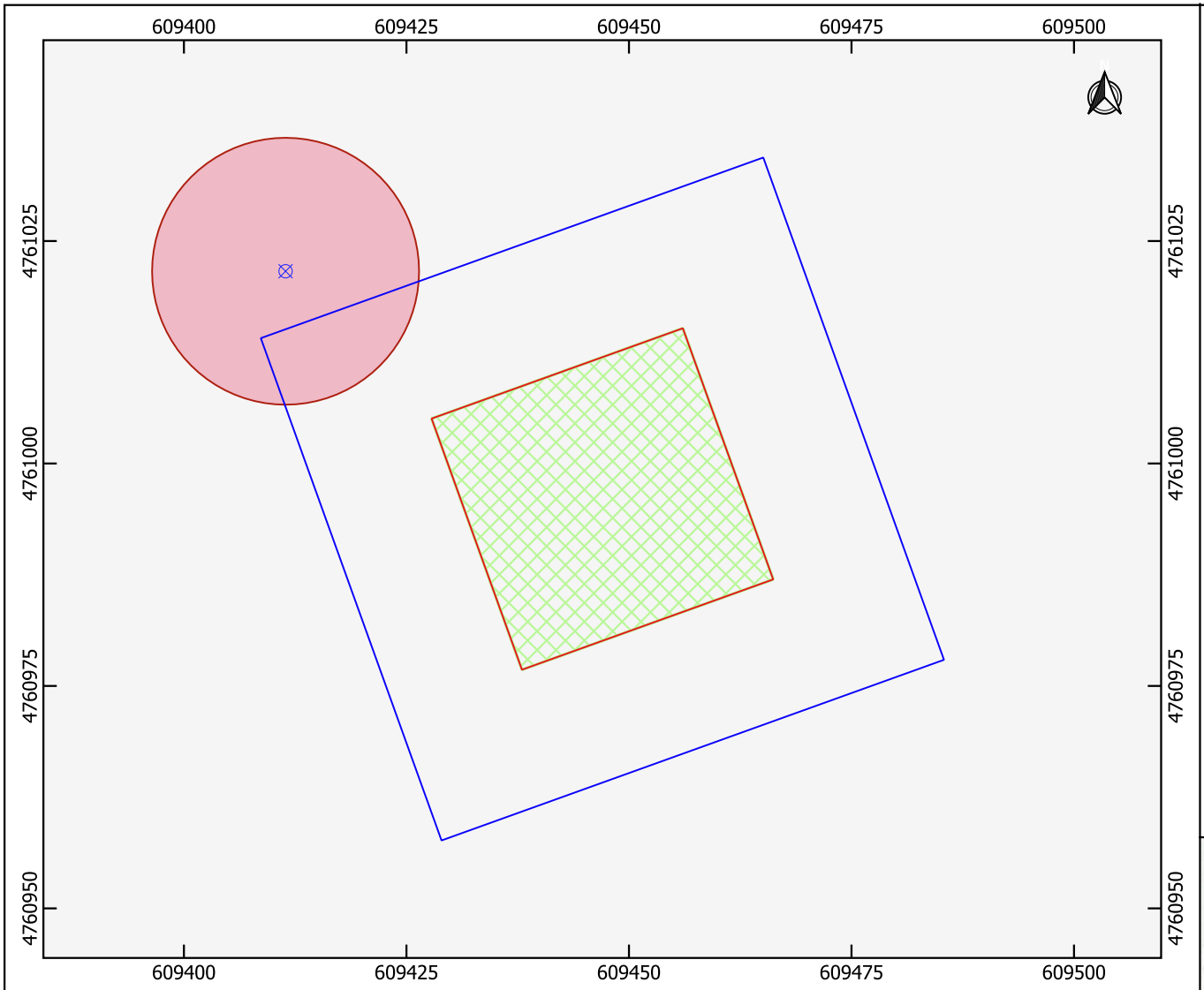
0 10 20 30 40 m

Alternate Location

x=609358,y= 4767063



GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT08
ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Alternate Location

x=609447,y= 4760996

OWF Zone 4

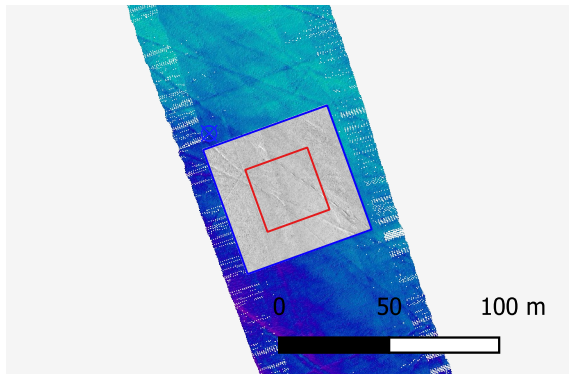
- Geotechnical Boxes OWF zone 4
- Survey extent

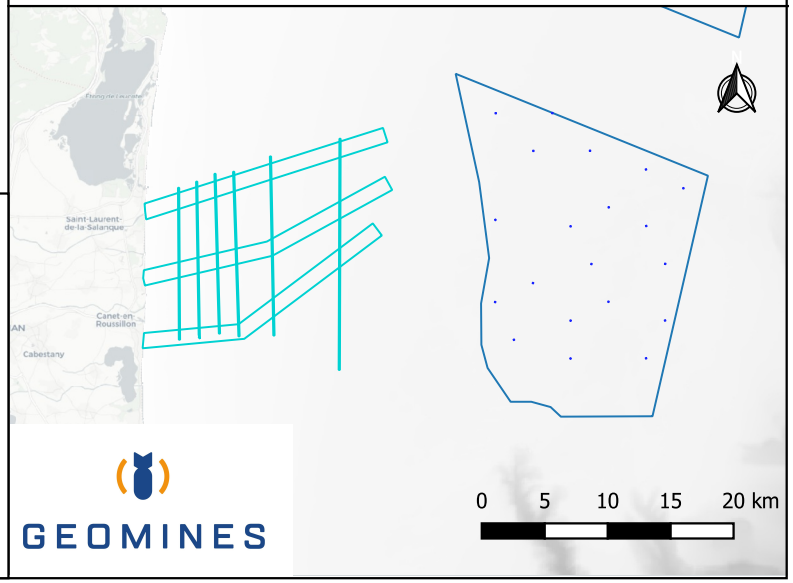
Concession

- Zone Parc AO6
- Zone corridors AO6

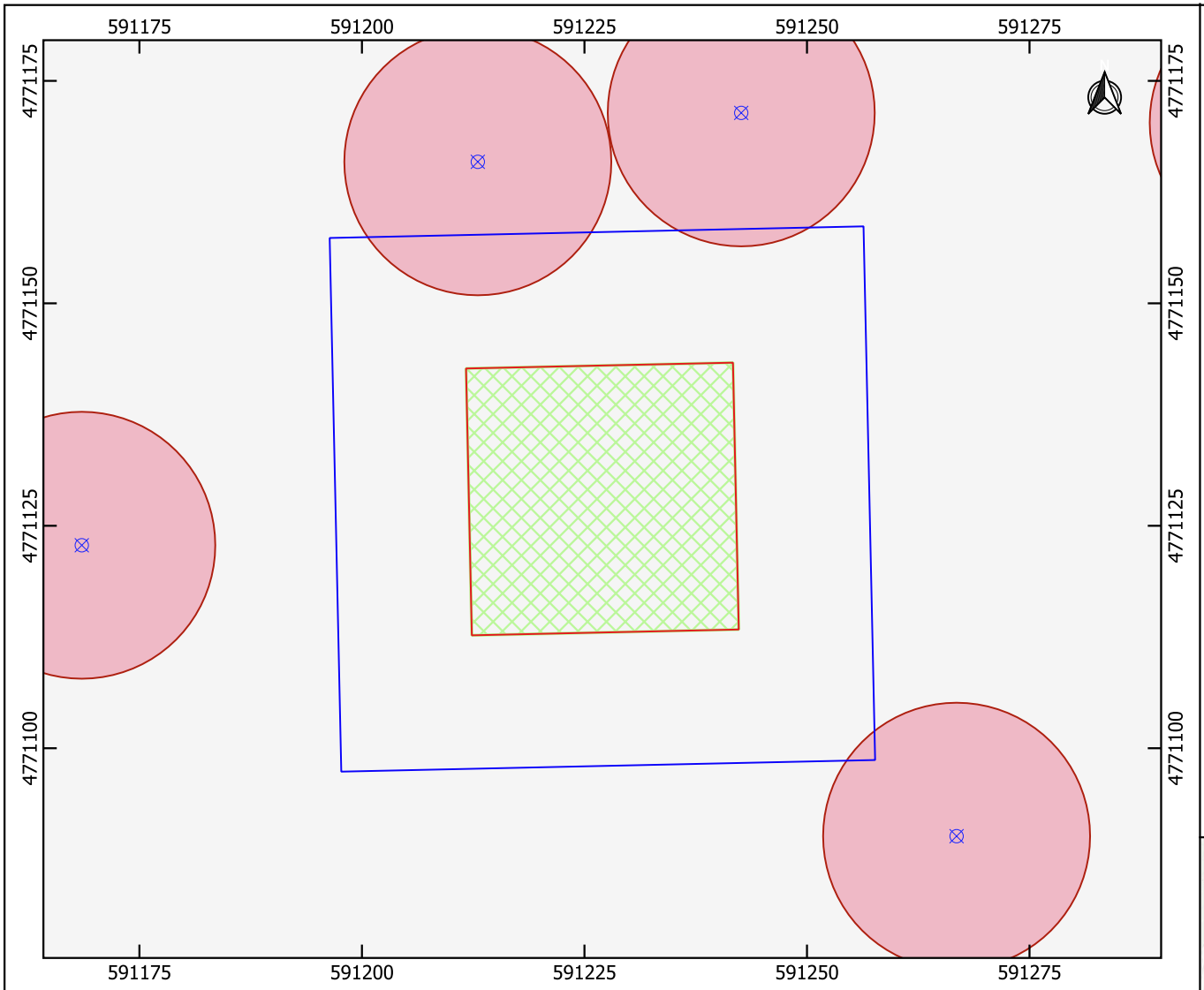
ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT09
ALARP CERTIFICATE GIS

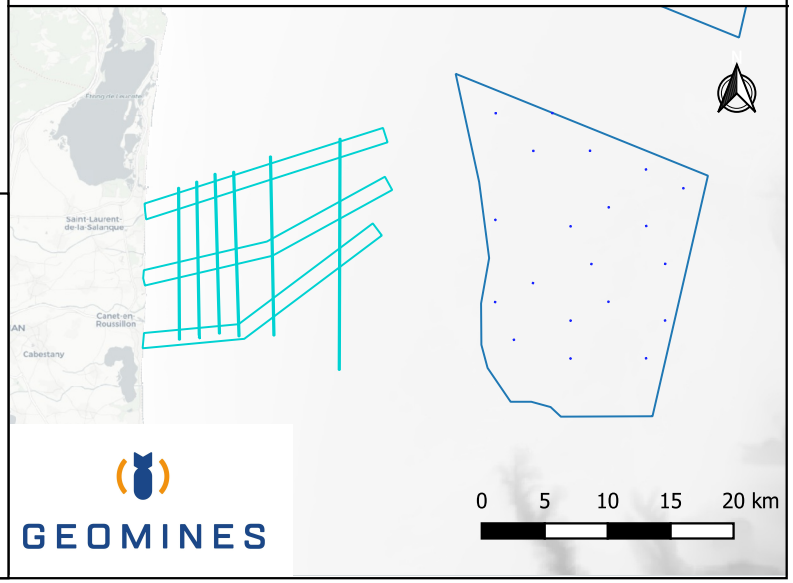
Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Original Location

x=591227,y= 4771128



OWF Zone 4

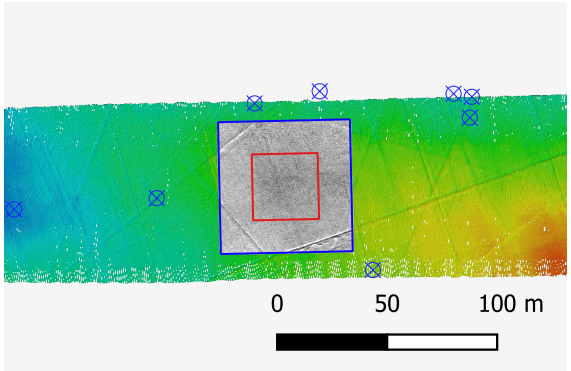
- Geotechnical Boxes OWF zone 4
- Survey extent

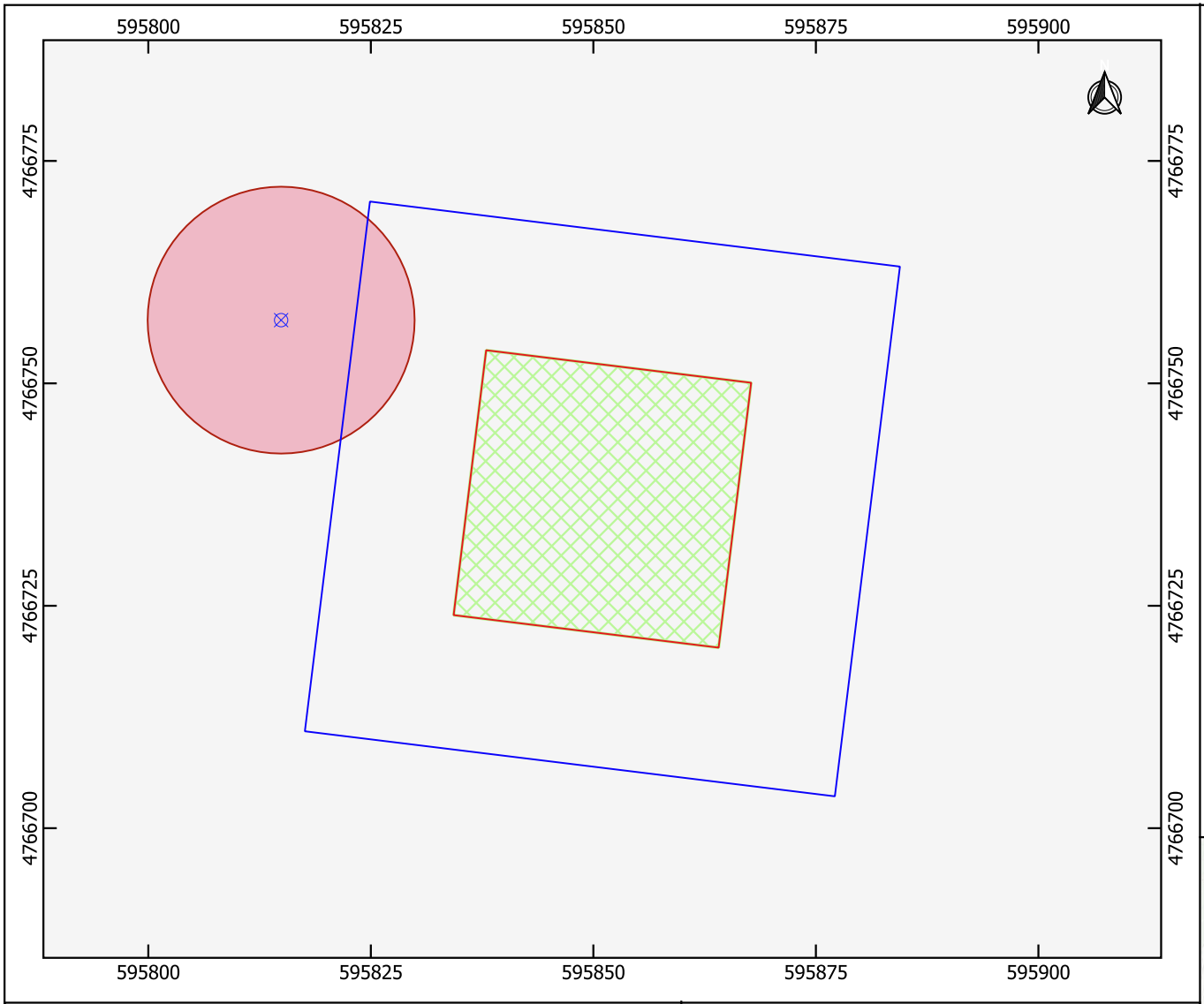
Concession

- Zone Parc AO6
- Zone corridors AO6

ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





ANNEXE A: AO6_Z4_OWF_CPT11
ALARP CERTIFICATE GIS

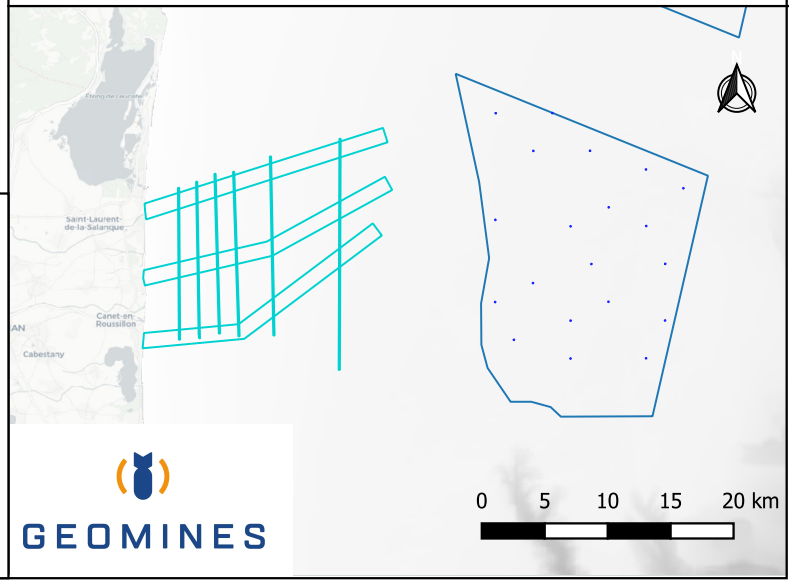
Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

ALternate Location

x=595851,y= 4766737



OWF Zone 4

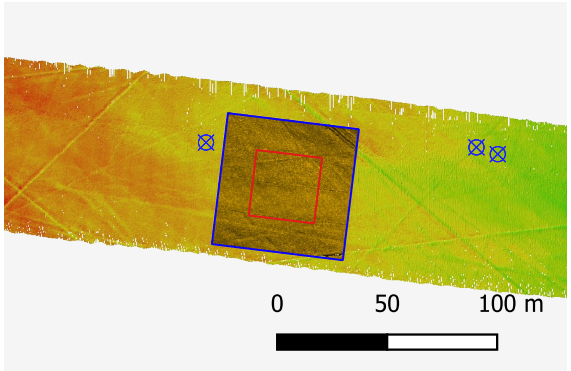
- Geotechnical Boxes OWF zone 4
- Survey extent

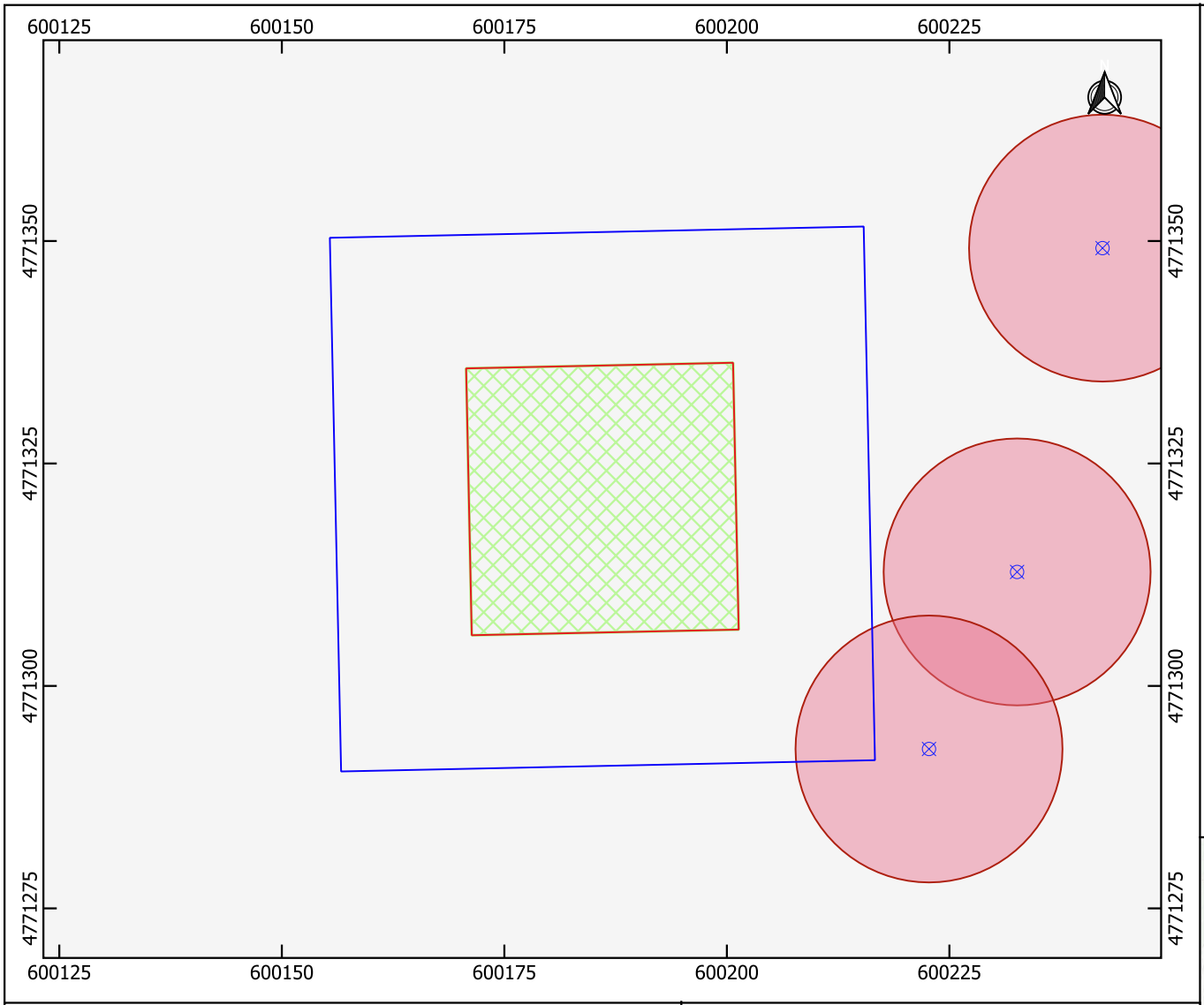
Concession

- Zone Parc AO6
- Zone corridors AO6

ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





ANNEXE A: AO6_Z4_OWF_CPT12 ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Alternate Location

x=600186,y= 4771321

OWF Zone 4

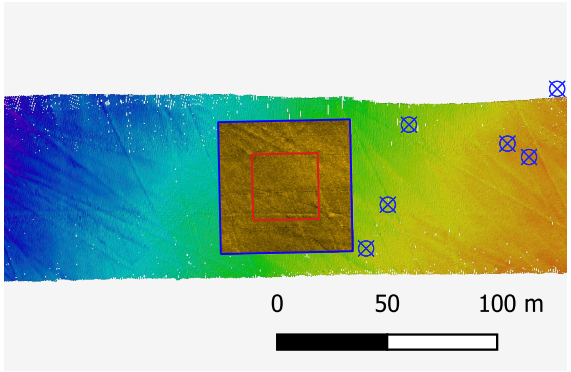
- Geotechnical Boxes OWF zone 4
- Survey extent

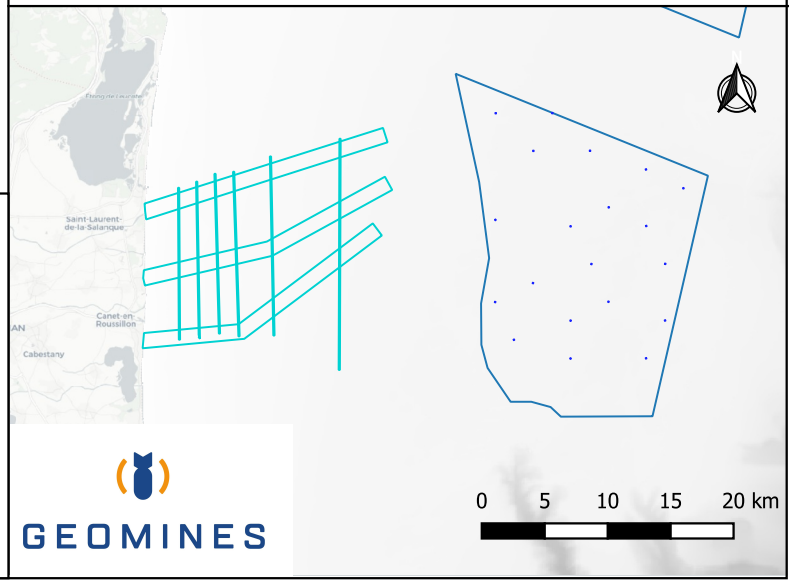
Concession

- Zone Parc AO6
- Zone corridors AO6

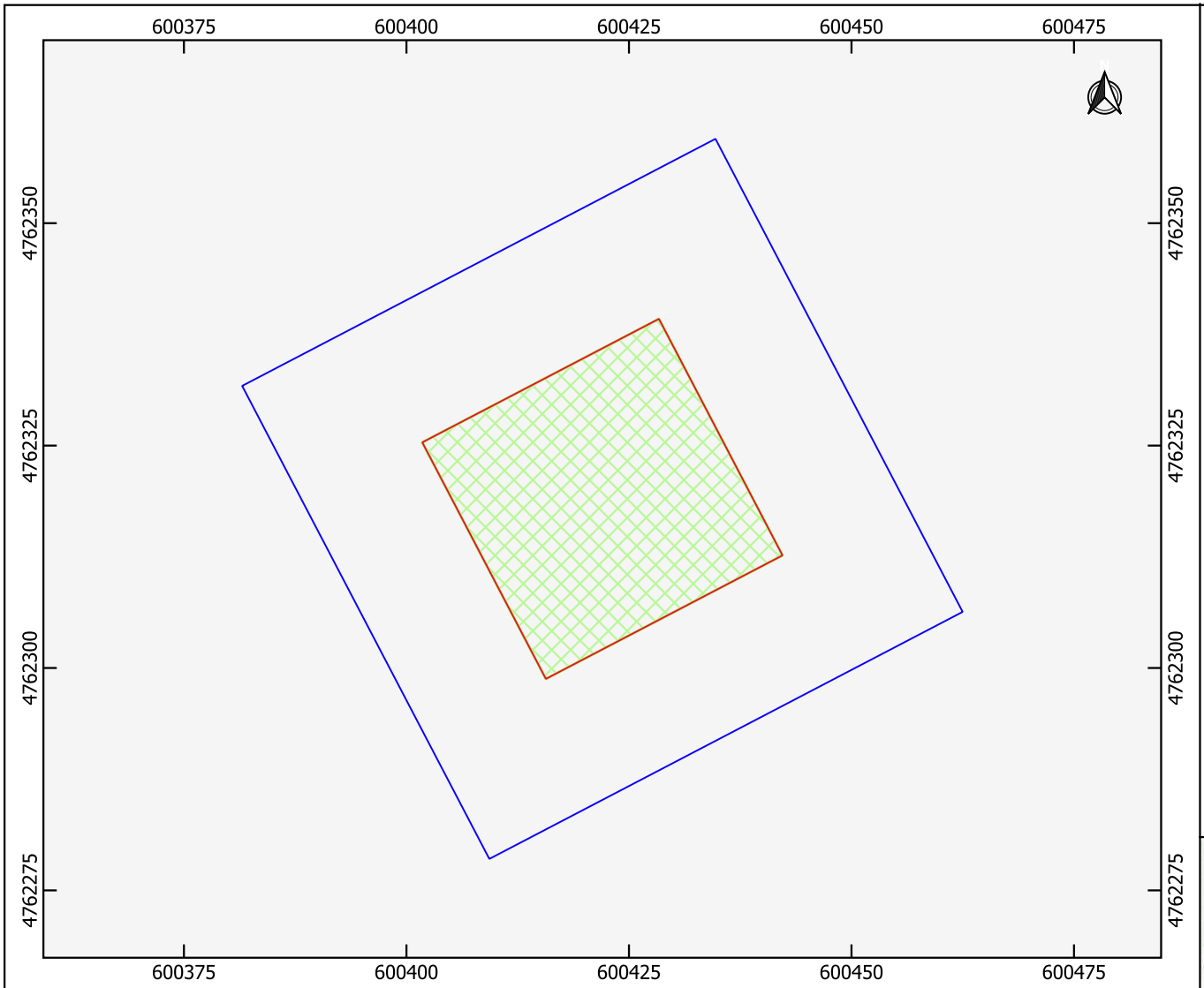
ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT14
ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Original Location

x=600422,y= 4762319

OWF Zone 4

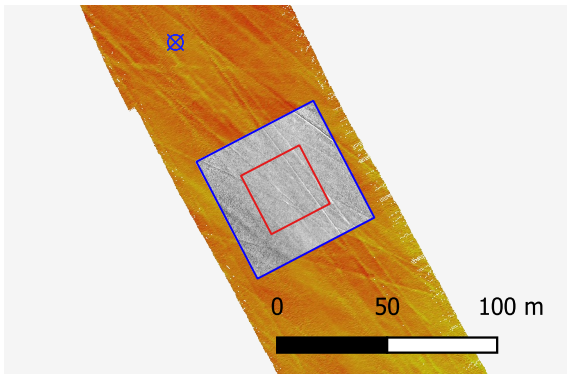
- Geotechnical Boxes OWF zone 4
- Survey extent

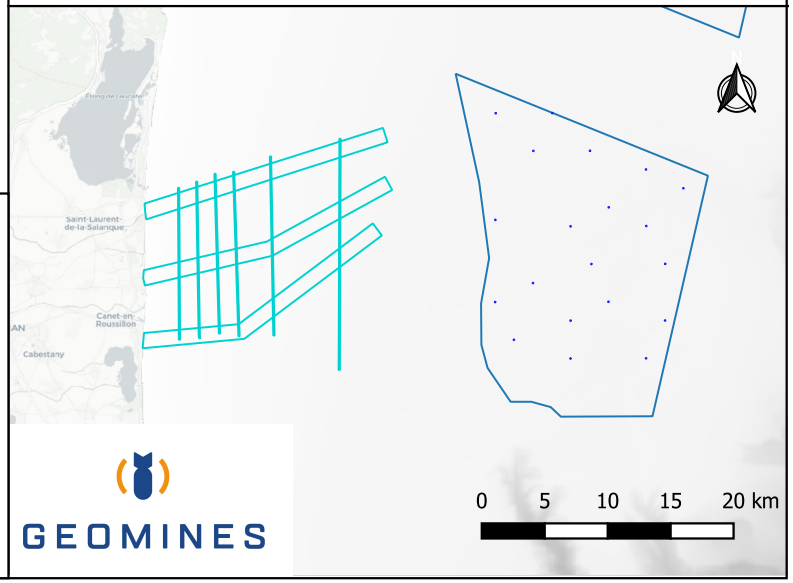
Concession

- Zone Parc AO6
- Zone corridors AO6

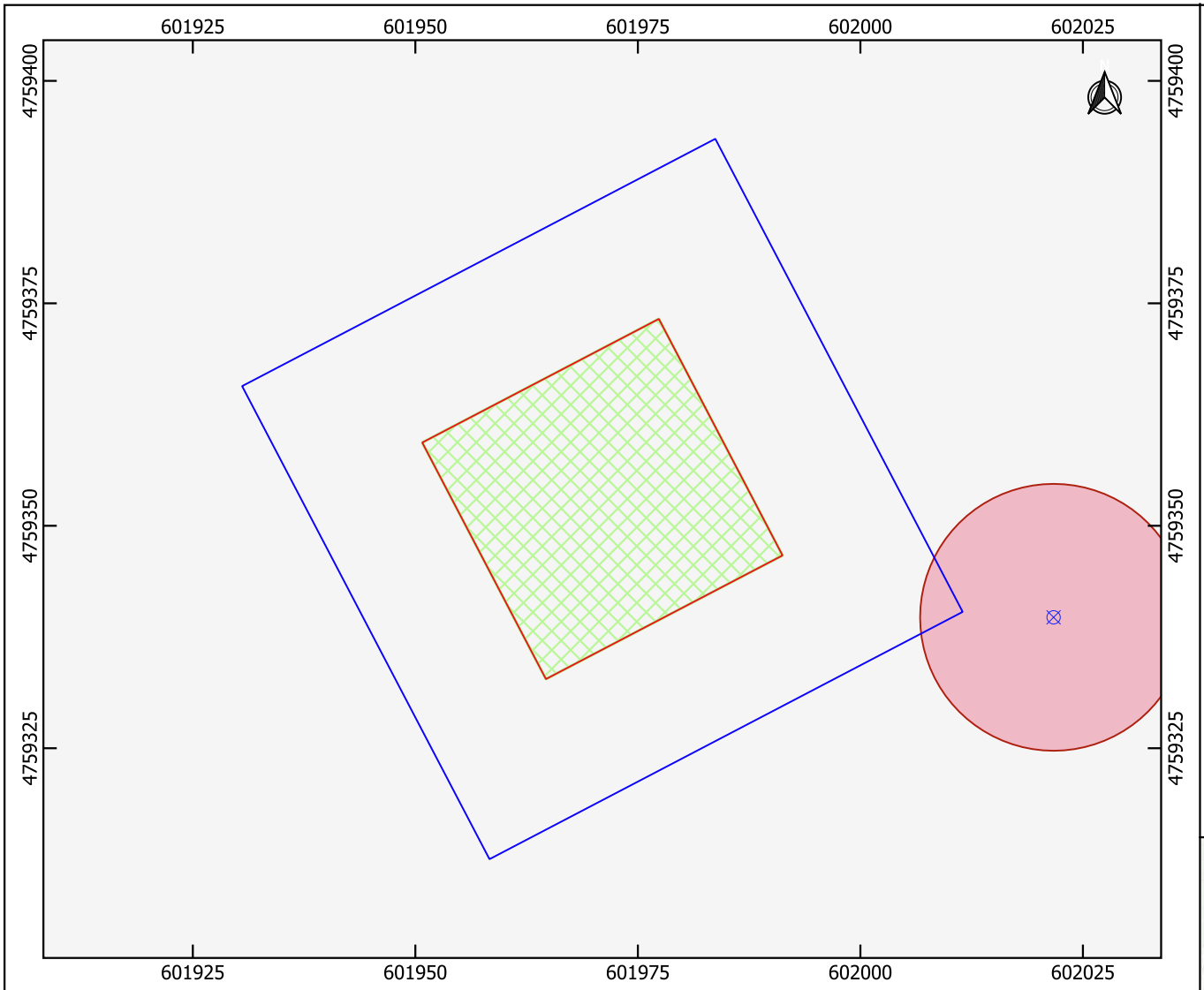
ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT15
ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Original Location

x=601971,y= 4759353

OWF Zone 4

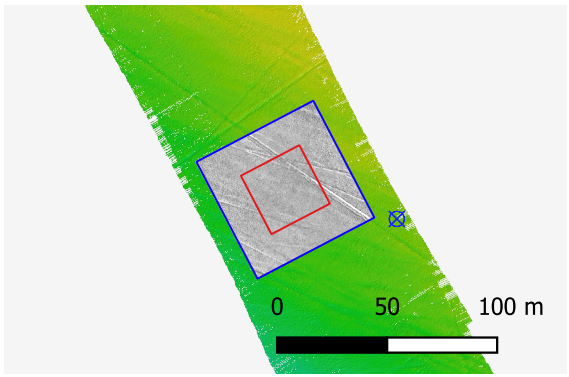
- Geotechnical Boxes OWF zone 4
- Survey extent

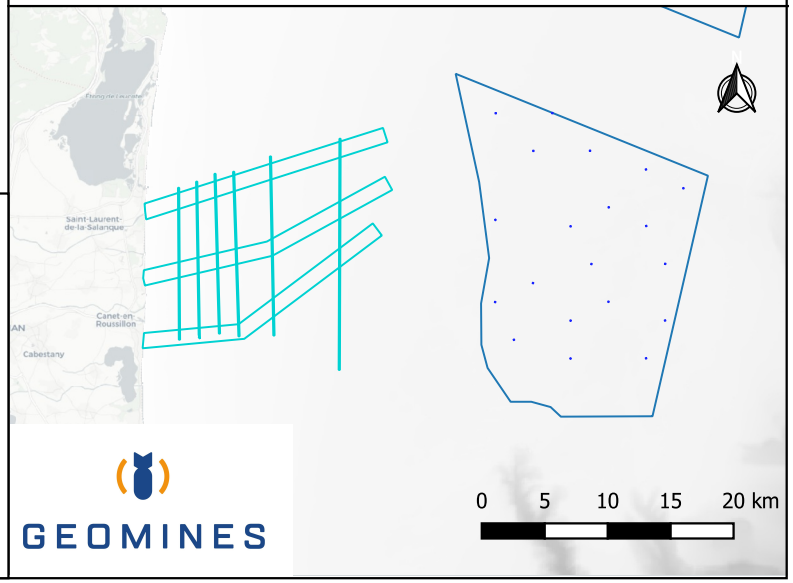
Concession

- Zone Parc AO6
- Zone corridors AO6

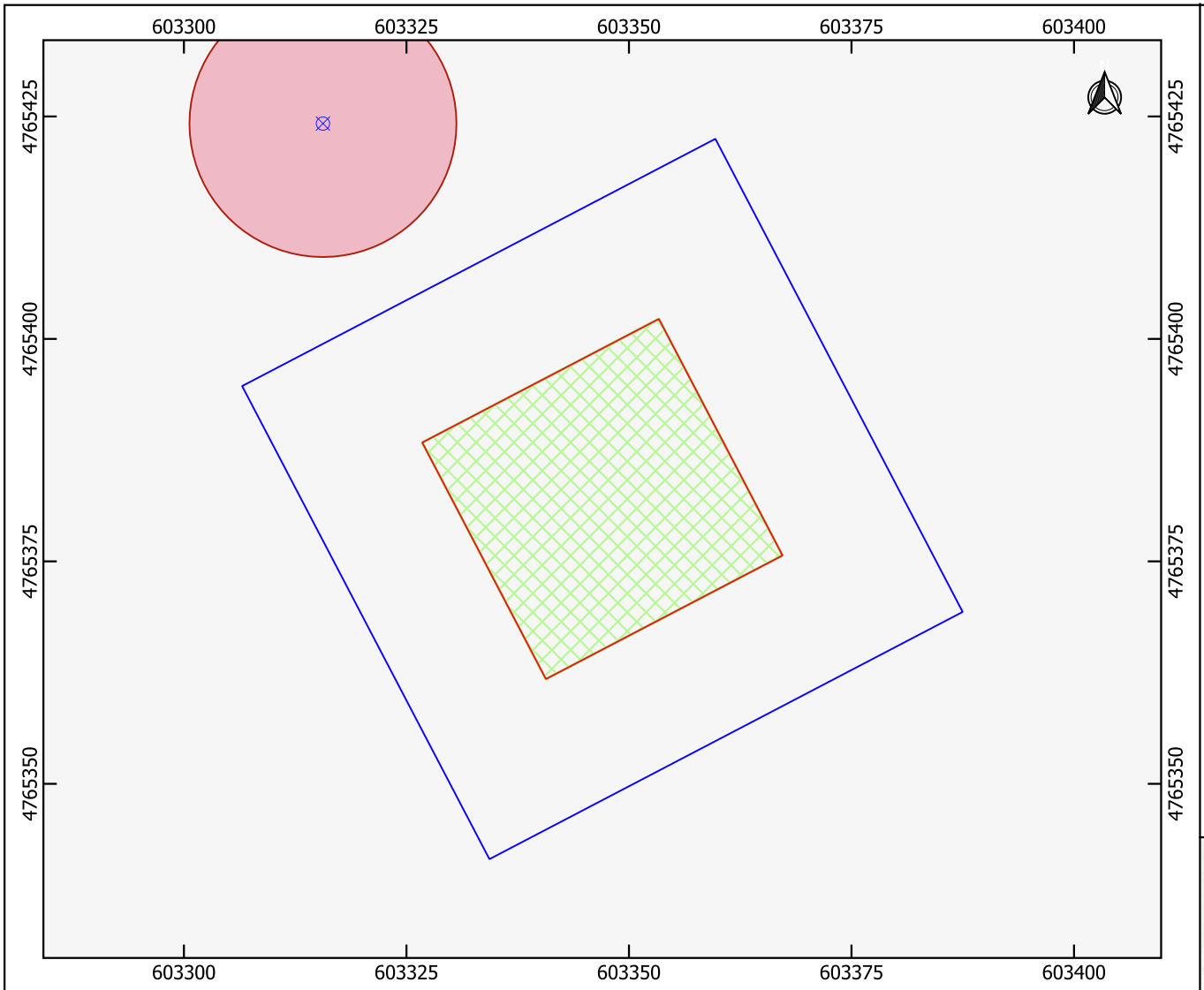
ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT17
ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Original Location

x=603347,y= 4765382

OWF Zone 4

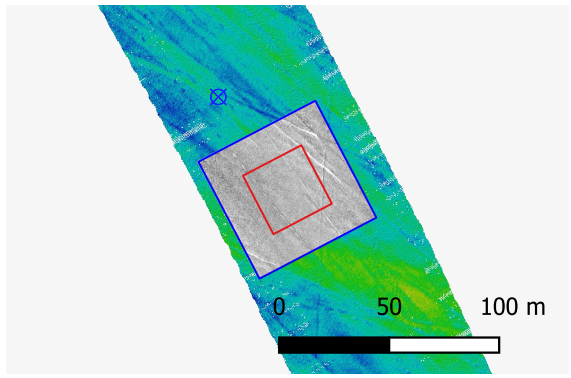
- Geotechnical Boxes OWF zone 4
- Survey extent

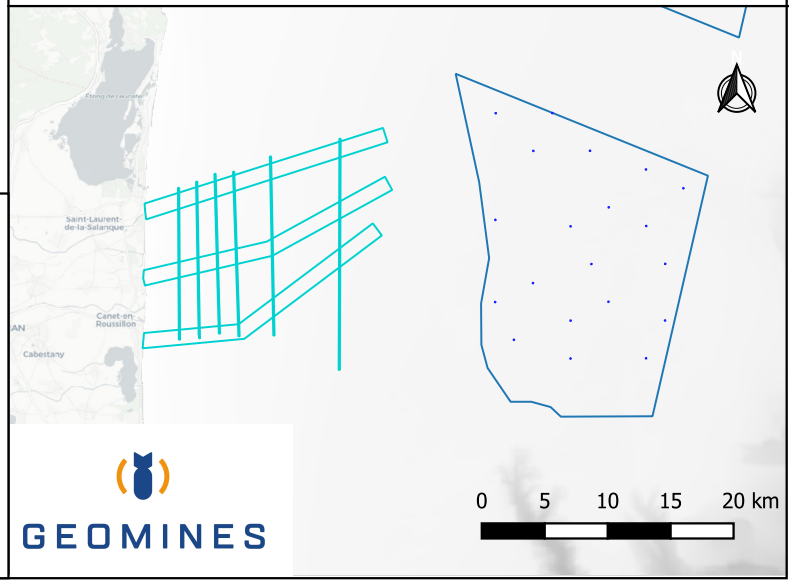
Concession

- Zone Parc AO6
- Zone corridors AO6

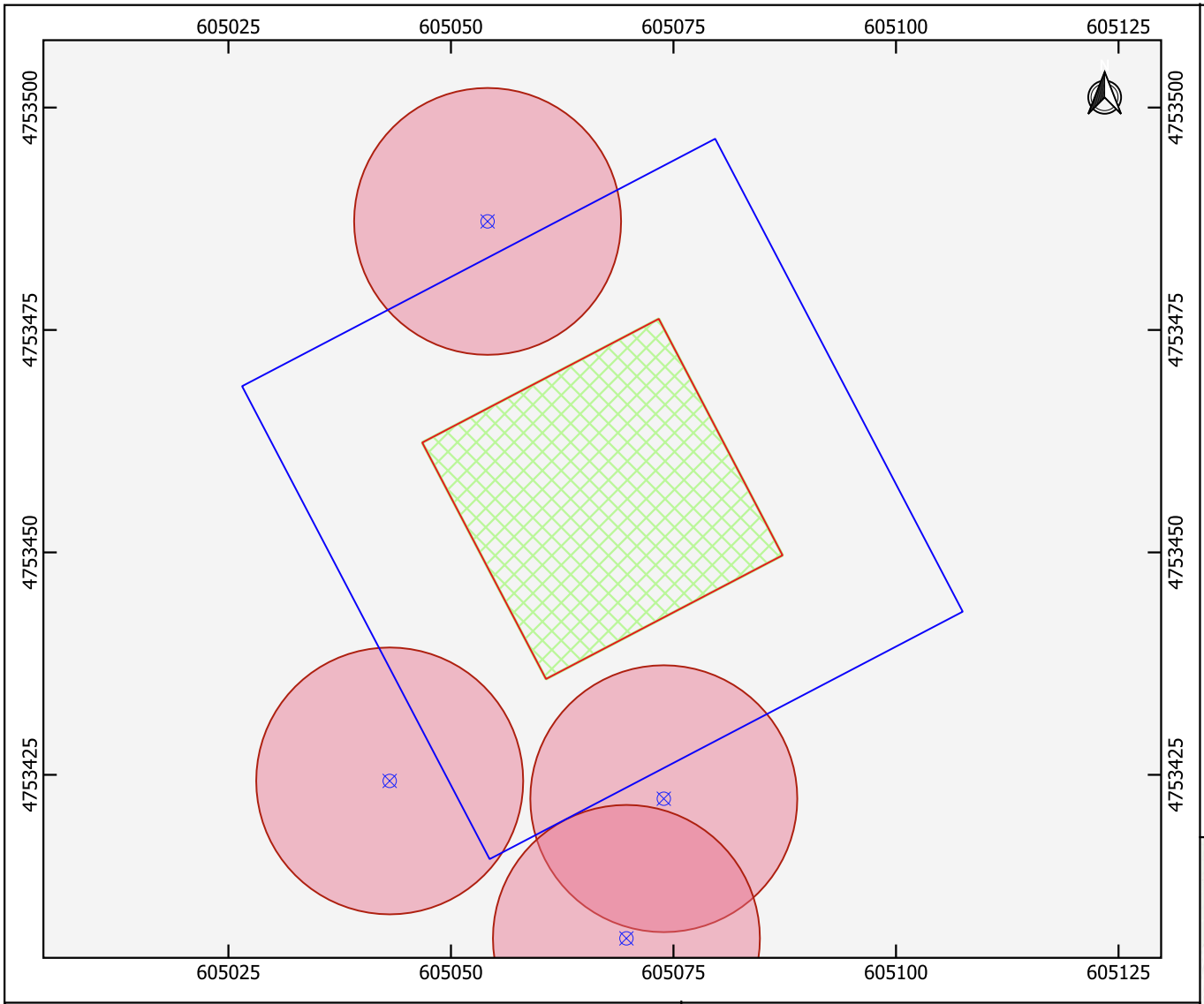
ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES



ANNEXE A: AO6_Z4_OWF_CPT20
ALARP CERTIFICATE GIS

Scale: 1/750 Date: 2023-03-20

Geodesy : WGS 84 - UTM 31N Version: V0

0 10 20 30 40 m

Alternate Location

x=605067,y= 4753456

OWF Zone 4

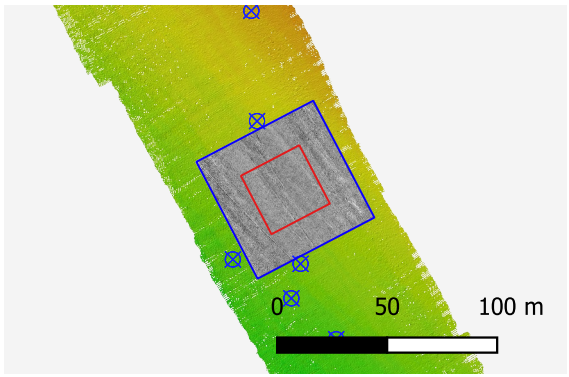
- Geotechnical Boxes OWF zone 4
- Survey extent

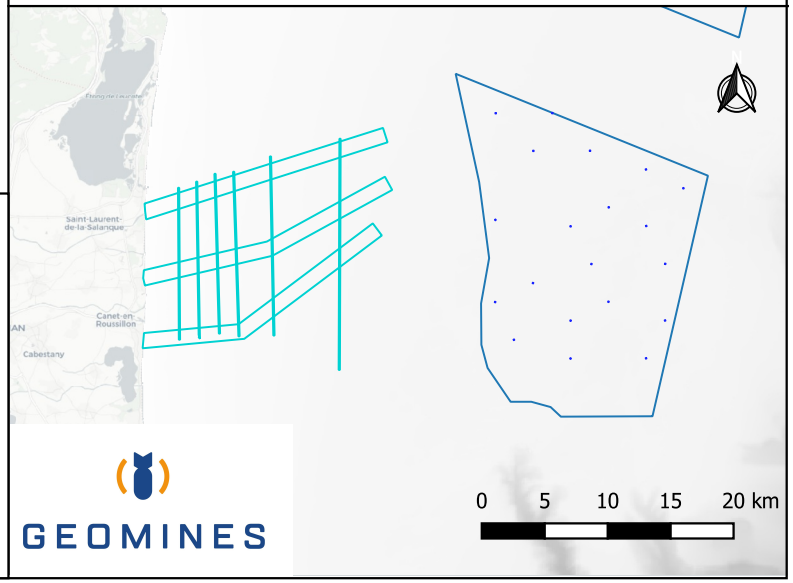
Concession

- Zone Parc AO6
- Zone corridors AO6

ALARP

- AO6_Z4_OWF_SSS_targets
- AO6_Z4_OWF_SBP_targets
- AO6_Z4_OWF_avoidance
- AO6_Z4_OWF_ALARP





GEOMINES

APPENDIX II – TARGET LIST

SIDE SCAN SONAR TARGETS

#	Name	X	Y
1	AO6_Z4_OWF_B01_59	607817.2	4756564.2
2	AO6_Z4_OWF_B01_60	608529.7	4756198.0
3	AO6_Z4_OWF_B01_61	607777.9	4756566.5
4	AO6_Z4_OWF_B01_62	608017.4	4756422.4
5	AO6_Z4_OWF_B02_10	604862.9	4757992.0
6	AO6_Z4_OWF_B02_11	604914.2	4758008.9
7	AO6_Z4_OWF_B02_12	605144.8	4757898.5
8	AO6_Z4_OWF_B02_13	605637.3	4757627.7
9	AO6_Z4_OWF_B02_14	605239.1	4757786.1
10	AO6_Z4_OWF_B02_15	605225.6	4757792.5
11	AO6_Z4_OWF_B02_16	605229.6	4757784.4
12	AO6_Z4_OWF_B02_17	605079.6	4757861.9
13	AO6_Z4_OWF_B02_18	605029.1	4757881.1
14	AO6_Z4_OWF_B02_19	604990.7	4757910.0
15	AO6_Z4_OWF_B02_20	604991.1	4757912.8
16	AO6_Z4_OWF_B02_21	604918.7	4757934.3
17	AO6_Z4_OWF_B02_22	604856.6	4757975.6
18	AO6_Z4_OWF_B02_23	604830.3	4757984.6
19	AO6_Z4_OWF_B02_24	604836.1	4758028.7
20	AO6_Z4_OWF_B02_25	604847.5	4758031.6
21	AO6_Z4_OWF_B02_26	604838.5	4758030.2
22	AO6_Z4_OWF_B02_27	604825.0	4757989.6
23	AO6_Z4_OWF_B02_28	604702.7	4758100.5
24	AO6_Z4_OWF_B02_29	604627.0	4758118.7
25	AO6_Z4_OWF_B02_30	604464.5	4758160.0
26	AO6_Z4_OWF_B02_31	604440.9	4758171.8
27	AO6_Z4_OWF_B02_32	604434.6	4758221.8
28	AO6_Z4_OWF_B02_33	604439.4	4758221.5
29	AO6_Z4_OWF_B02_34	604657.3	4758102.7
30	AO6_Z4_OWF_B02_35	604897.3	4757932.8
31	AO6_Z4_OWF_B02_36	605501.9	4757638.4
32	AO6_Z4_OWF_B02_37	605599.0	4757649.5
33	AO6_Z4_OWF_B02_9	604676.0	4758119.2
34	AO6_Z4_OWF_B03_63	609491.8	4760909.3
35	AO6_Z4_OWF_B03_64	609411.4	4761021.6
36	AO6_Z4_OWF_B03_65	609218.9	4761570.4
37	AO6_Z4_OWF_B03_66	609307.6	4761318.6

#	Name	X	Y
38	AO6_Z4_OWF_B05_107	609496.6	4767159.3
39	AO6_Z4_OWF_B05_108	609448.8	4767085.8
40	AO6_Z4_OWF_B05_109	609400.6	4767098.4
41	AO6_Z4_OWF_B05_110	609341.8	4767033.6
42	AO6_Z4_OWF_B05_111	609291.4	4766958.2
43	AO6_Z4_OWF_B05_112	609247.0	4766943.9
44	AO6_Z4_OWF_B05_113	609129.6	4766854.4
45	AO6_Z4_OWF_B05_114	609159.6	4766890.9
46	AO6_Z4_OWF_B05_115	609239.3	4766896.7
47	AO6_Z4_OWF_B05_116	609299.7	4766959.1
48	AO6_Z4_OWF_B05_117	609460.3	4767131.5
49	AO6_Z4_OWF_B05_118	609600.2	4767262.2
50	AO6_Z4_OWF_B05_119	609748.1	4767471.7
51	AO6_Z4_OWF_B05_120	609552.0	4767244.0
52	AO6_Z4_OWF_B05_121	609515.7	4767257.2
53	AO6_Z4_OWF_B05_122	609407.5	4767085.3
54	AO6_Z4_OWF_B05_123	609336.3	4767036.4
55	AO6_Z4_OWF_B05_124	609276.5	4766959.1
56	AO6_Z4_OWF_B05_125	609232.1	4766977.6
57	AO6_Z4_OWF_B05_126	609228.3	4766954.0
58	AO6_Z4_OWF_B05_127	609165.9	4766907.4
59	AO6_Z4_OWF_B05_128	609161.9	4766848.5
60	AO6_Z4_OWF_B05_129	609154.5	4766841.3
61	AO6_Z4_OWF_B05_130	609156.0	4766843.7
62	AO6_Z4_OWF_B05_131	609158.8	4766844.8
63	AO6_Z4_OWF_B05_132	609123.8	4766798.6
64	AO6_Z4_OWF_B05_133	609064.4	4766798.3
65	AO6_Z4_OWF_B05_134	609010.2	4766757.0
66	AO6_Z4_OWF_B06_135	609010.5	4773002.4
67	AO6_Z4_OWF_B06_136	609062.0	4773044.0
68	AO6_Z4_OWF_B06_137	609399.6	4773036.9
69	AO6_Z4_OWF_B06_138	609577.5	4773058.1
70	AO6_Z4_OWF_B06_139	609596.3	4773041.9
71	AO6_Z4_OWF_B06_140	609307.2	4772984.7
72	AO6_Z4_OWF_B06_141	609301.1	4773036.1
73	AO6_Z4_OWF_B06_142	609122.1	4773020.3
74	AO6_Z4_OWF_B06_143	609117.5	4773021.7
75	AO6_Z4_OWF_B06_144	609113.0	4773024.1
76	AO6_Z4_OWF_B06_145	608956.2	4773030.8

#	Name	X	Y
77	AO6_Z4_OWF_B06_146	608859.3	4772966.3
78	AO6_Z4_OWF_B06_147	609071.8	4772965.3
79	AO6_Z4_OWF_B06_148	609073.7	4772961.1
80	AO6_Z4_OWF_B06_149	609341.6	4772965.6
81	AO6_Z4_OWF_B08_67	604785.5	4768462.4
82	AO6_Z4_OWF_B08_68	604738.4	4768473.8
83	AO6_Z4_OWF_B08_69	604739.4	4768473.6
84	AO6_Z4_OWF_B08_70	604738.5	4768474.5
85	AO6_Z4_OWF_B08_71	604789.6	4768411.7
86	AO6_Z4_OWF_B08_72	604744.7	4768259.7
87	AO6_Z4_OWF_B08_73	604781.0	4768148.2
88	AO6_Z4_OWF_B08_74	604811.6	4768029.1
89	AO6_Z4_OWF_B08_75	604755.6	4768470.3
90	AO6_Z4_OWF_B08_76	604795.4	4768848.1
91	AO6_Z4_OWF_B08_77	604803.8	4768636.8
92	AO6_Z4_OWF_B08_78	604779.6	4768091.0
93	AO6_Z4_OWF_B08_79	604824.3	4768064.9
94	AO6_Z4_OWF_B11_163	599897.6	4771351.8
95	AO6_Z4_OWF_B11_164	599996.7	4771313.9
96	AO6_Z4_OWF_B11_165	600038.0	4771345.2
97	AO6_Z4_OWF_B11_166	600242.2	4771349.2
98	AO6_Z4_OWF_B11_167	600232.6	4771312.8
99	AO6_Z4_OWF_B11_168	600309.6	4771365.5
100	AO6_Z4_OWF_B11_169	600383.3	4771361.9
101	AO6_Z4_OWF_B11_170	600521.1	4771366.0
102	AO6_Z4_OWF_B11_171	600560.1	4771367.1
103	AO6_Z4_OWF_B11_172	600613.4	4771323.3
104	AO6_Z4_OWF_B11_173	600621.6	4771366.0
105	AO6_Z4_OWF_B11_174	600619.5	4771366.7
106	AO6_Z4_OWF_B11_175	600574.1	4771302.7
107	AO6_Z4_OWF_B11_176	600512.2	4771312.8
108	AO6_Z4_OWF_B11_177	600493.5	4771310.3
109	AO6_Z4_OWF_B11_178	600446.8	4771312.9
110	AO6_Z4_OWF_B11_179	600296.8	4771334.5
111	AO6_Z4_OWF_B11_180	600287.0	4771340.6
112	AO6_Z4_OWF_B11_181	600222.7	4771292.9
113	AO6_Z4_OWF_B11_182	600017.0	4771336.8
114	AO6_Z4_OWF_B11_183	599991.9	4771290.2
115	AO6_Z4_OWF_B11_184	599973.1	4771338.2

#	Name	X	Y
116	AO6_Z4_OWF_B11_185	599966.0	4771337.7
117	AO6_Z4_OWF_B11_186	599884.8	4771273.2
118	AO6_Z4_OWF_B11_187	599882.6	4771305.6
119	AO6_Z4_OWF_B11_188	599949.9	4771273.0
120	AO6_Z4_OWF_B11_189	600037.2	4771273.6
121	AO6_Z4_OWF_B11_190	600565.5	4771294.1
122	AO6_Z4_OWF_B11_191	591001.6	4771124.1
123	AO6_Z4_OWF_B11_192	590994.8	4771117.3
124	AO6_Z4_OWF_B11_193	591006.1	4771166.7
125	AO6_Z4_OWF_B11_194	591061.9	4771146.9
126	AO6_Z4_OWF_B11_195	591066.6	4771155.6
127	AO6_Z4_OWF_B11_196	591103.6	4771117.7
128	AO6_Z4_OWF_B11_197	591168.5	4771122.8
129	AO6_Z4_OWF_B11_198	591213.0	4771165.9
130	AO6_Z4_OWF_B11_199	591242.6	4771171.4
131	AO6_Z4_OWF_B11_200	591311.8	4771168.9
132	AO6_Z4_OWF_B11_201	591310.9	4771159.4
133	AO6_Z4_OWF_B11_202	591303.5	4771170.3
134	AO6_Z4_OWF_B11_203	591547.2	4771143.0
135	AO6_Z4_OWF_B11_204	591568.1	4771114.5
136	AO6_Z4_OWF_B11_205	591516.2	4771152.5
137	AO6_Z4_OWF_B11_206	591464.8	4771147.5
138	AO6_Z4_OWF_B11_207	591096.2	4771137.9
139	AO6_Z4_OWF_B11_208	590951.4	4771138.9
140	AO6_Z4_OWF_B11_209	590929.0	4771143.6
141	AO6_Z4_OWF_B11_210	590886.5	4771078.6
142	AO6_Z4_OWF_B11_211	590952.5	4771129.0
143	AO6_Z4_OWF_B11_212	591012.5	4771133.4
144	AO6_Z4_OWF_B11_213	591018.8	4771131.9
145	AO6_Z4_OWF_B11_214	591266.8	4771090.1
146	AO6_Z4_OWF_B11_215	591372.6	4771086.0
147	AO6_Z4_OWF_B11_216	591400.2	4771085.5
148	AO6_Z4_OWF_B12_150	595814.9	4766757.1
149	AO6_Z4_OWF_B12_151	595630.8	4766733.2
150	AO6_Z4_OWF_B12_152	595481.2	4766763.3
151	AO6_Z4_OWF_B12_153	595484.6	4766809.9
152	AO6_Z4_OWF_B12_154	595937.9	4766754.9
153	AO6_Z4_OWF_B12_155	595947.6	4766751.8
154	AO6_Z4_OWF_B12_156	596217.6	4766701.4

#	Name	X	Y
155	AO6_Z4_OWF_B12_157	596044.7	4766706.9
156	AO6_Z4_OWF_B12_158	595579.4	4766807.6
157	AO6_Z4_OWF_B12_159	595481.0	4766775.1
158	AO6_Z4_OWF_B12_160	595444.8	4766772.8
159	AO6_Z4_OWF_B12_161	595318.9	4766838.9
160	AO6_Z4_OWF_B12_162	595285.7	4766799.9
161	AO6_Z4_OWF_B15_100	603315.6	4765424.2
162	AO6_Z4_OWF_B15_101	603145.9	4765758.1
163	AO6_Z4_OWF_B15_102	603088.7	4765846.3
164	AO6_Z4_OWF_B15_103	603115.0	4765893.5
165	AO6_Z4_OWF_B15_104	603396.9	4765311.3
166	AO6_Z4_OWF_B15_105	603384.2	4765265.0
167	AO6_Z4_OWF_B15_106	603490.9	4765145.4
168	AO6_Z4_OWF_B17_80	600321.8	4762511.7
169	AO6_Z4_OWF_B17_81	600289.0	4762535.0
170	AO6_Z4_OWF_B17_82	600387.7	4762443.9
171	AO6_Z4_OWF_B17_83	600372.0	4762386.0
172	AO6_Z4_OWF_B18_84	602021.9	4759157.2
173	AO6_Z4_OWF_B18_85	601861.5	4759469.6
174	AO6_Z4_OWF_B18_86	601854.8	4759475.2
175	AO6_Z4_OWF_B18_87	602102.5	4759189.8
176	AO6_Z4_OWF_B18_88	602038.7	4759201.6
177	AO6_Z4_OWF_B18_89	602021.7	4759339.7
178	AO6_Z4_OWF_B18_90	601938.1	4759482.5
179	AO6_Z4_OWF_B18_91	605073.3	4762171.6
180	AO6_Z4_OWF_B18_92	604796.3	4762684.2
181	AO6_Z4_OWF_B18_93	604772.9	4762749.8
182	AO6_Z4_OWF_B18_94	604795.1	4762664.1
183	AO6_Z4_OWF_B18_95	604770.5	4762605.1
184	AO6_Z4_OWF_B18_96	604917.3	4762420.2
185	AO6_Z4_OWF_B18_97	605052.1	4762089.0
186	AO6_Z4_OWF_B18_98	605075.1	4762099.0
187	AO6_Z4_OWF_B18_99	604676.5	4762862.7
188	AO6_Z4_OWF_B20_38	605250.8	4753119.3
189	AO6_Z4_OWF_B20_39	605103.9	4753346.5
190	AO6_Z4_OWF_B20_40	605090.1	4753388.0
191	AO6_Z4_OWF_B20_41	605073.9	4753422.3
192	AO6_Z4_OWF_B20_42	605033.0	4753562.7
193	AO6_Z4_OWF_B20_43	604973.4	4753595.4

#	Name	X	Y
194	AO6_Z4_OWF_B20_44	604981.4	4753605.6
195	AO6_Z4_OWF_B20_45	604980.6	4753607.9
196	AO6_Z4_OWF_B20_46	604896.8	4753772.0
197	AO6_Z4_OWF_B20_47	604886.9	4753778.6
198	AO6_Z4_OWF_B20_48	604977.7	4753671.3
199	AO6_Z4_OWF_B20_49	604948.5	4753616.2
200	AO6_Z4_OWF_B20_50	604987.6	4753563.2
201	AO6_Z4_OWF_B20_51	605051.5	4753537.4
202	AO6_Z4_OWF_B20_52	605069.7	4753406.6
203	AO6_Z4_OWF_B20_53	605199.7	4753147.4
204	AO6_Z4_OWF_B20_54	605272.9	4753085.3
205	AO6_Z4_OWF_B20_55	605290.2	4753066.0
206	AO6_Z4_OWF_B20_56	605233.2	4753129.1
207	AO6_Z4_OWF_B20_57	605043.1	4753424.3
208	AO6_Z4_OWF_B20_58	605054.1	4753487.2