

NOTES:
 1) This survey meets the mandatory class requirement as outlined in the MSG document 'Standards for Hydrographic Surveys within Queensland Waters V1.3'.
 2) Contours are computer generated to hydrographic standard (inclusive).
 3) Coastline obtained from aerial photography is approximate only.
 4) Soundings coloured to clearance depth of 3.4 m LAT for the Main Channel and 2.5m LAT for the North Arm.
 5) Vertical control for the survey was based on the the Applanix Navemaster V5 RTK-GPS survey system using HxGN SmartNet Service.
 6) Soundings reduced to LAT datum using LAT separation model: \\19019_coast_region_20190124_SNA.m...
 7) Horizontal and vertical position check carried out over PM 189792 23/02/2019.
 8) Channel linework and chainages based on Cgd Files Channel Linework - 2019.dwg provided by Tim Mackey 8/4/2019.
 9) For Object Detection Report refer to P.....

Horizontal Datum	MGA Zone 56 (GDA94)	Easting	Northing
Base Station	HxGN SmartNet Service (Fixed base "ARUN")	Vessel	QG Kalinga
Vertical Datum	LAT based on	Echo Sounder	Zongsberg Geoswath COMBAT PLUS 3000Hz
Tide Notes	Soundings reduced to datum using RTK-GNSS observations with HxGN SmartNet Service and a MSG-LAT ellipsoid separation model. Refer to Note 6	Heave Meter	APPLANIX NAVEMASTER (OW 9.80 Fw 9.77)
Depth Tolerance	0.2m	Horizontal Positioning	APPLANIX NAVEMASTER (OW 9.80 Fw 9.77) HxGN SmartNet Service MSG-LAT ellipsoid separation model
Horizontal Tolerance	1.5m	Data Collection/Processing	Caris HIPS 6.018 v10.4.10 (Decompile: JUL 02)
Weather	5-10 kt SE	Tidal Reference Station	TS 100025, TS 045206A, TS100501

SOUNDINGS (m)
 2.5 below datum
 0.7 above datum

LEVELS (m)
 0.5 above datum
 0.3 below datum

SCALE 1 : 500 AT A1

CLASS CLIENT
C GCWA

***SEE NOTES**

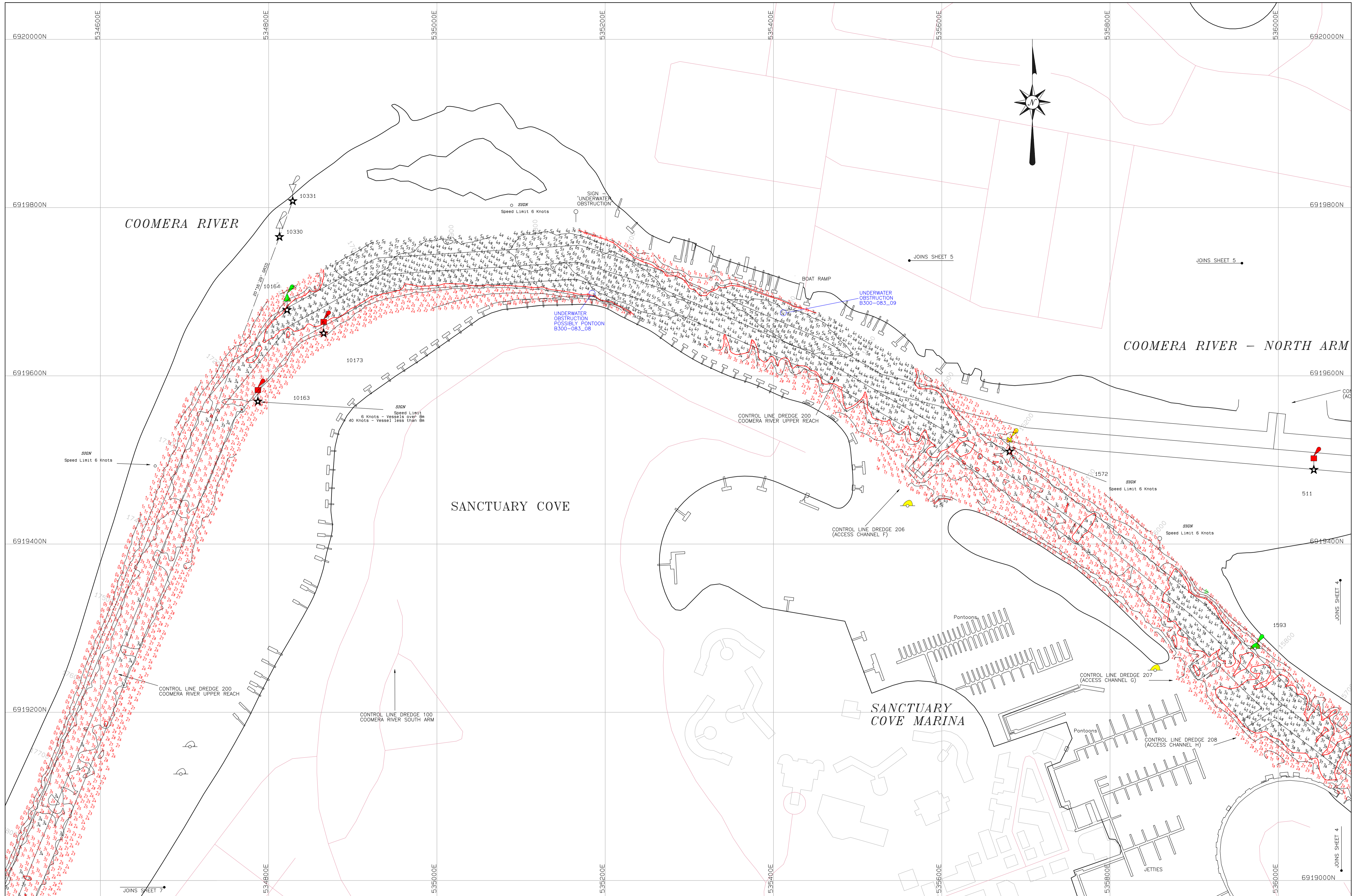
Signature
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COOMERA RIVER
 SANCTUARY COVE (Ch 15500) TO GOLD COAST CITY MARINA (Ch 20800)
 DREDGE SUPPORT HYDROGRAPHIC SURVEY
 1 JULY 2019
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NOTES:

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- Vertical control for the survey was based on the the Applanix Navemaster V5 RTK-GPS survey system using HxGN SmartNet Service.
- Soundings reduced to LAT datum using LAT separation model: \\0619_coast_region_20190124_SNA.m... \\0619_coast_region_20190124_SNA.m...
- Horizontal and vertical position check carried out over the 1997/98 2.5m LAT ellipsoid/3 separation model. Refer to Note 6
- Channel linework and chainages based on Cad Files Coomera River - 15/07/2019.dwg provided by Tim Mackey 8/4/2019
- For Object Detection Report refer to 7.....

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Horizontal Datum	MGA Zone 56 (GDA94)	Easting	Northing
Base Station	HxGN SmartNet Service (Fixed base "ARUN")	Vessel	GG Kalinga
Vertical Datum	LAT based on	Echo Sounder	Zongsberg Geoswath Compact Plus 300MHz
Tide Notes	Soundings reduced to datum using RTK-GNSS observations with HxGN SmartNet Service and a MSG-LAT ellipsoid/3 separation model. Refer to Note 6	Heave Meter	APPLANIX NAVEMASTER (SW 9.80 FIM 9.77)
Depth Tolerance	0.2m	Horizontal Positioning	APPLANIX NAVEMASTER (SW 9.80 FIM 9.77)
Horizontal Tolerance	1.5m	Data Collection/Processing	HYDROGRAPHIC SERVICES (SW 1.00 FIM 1.00)
Weather	5-10 kt SE	Tidal Reference Station	TS 100025, TS 045206A, TS100501

SOUNDINGS (m)
 25 below datum
 07 above datum

LEVELS (m)
 05 above datum
 03 below datum

SCALE 1 : 500 AT A1

CLASS CLIENT
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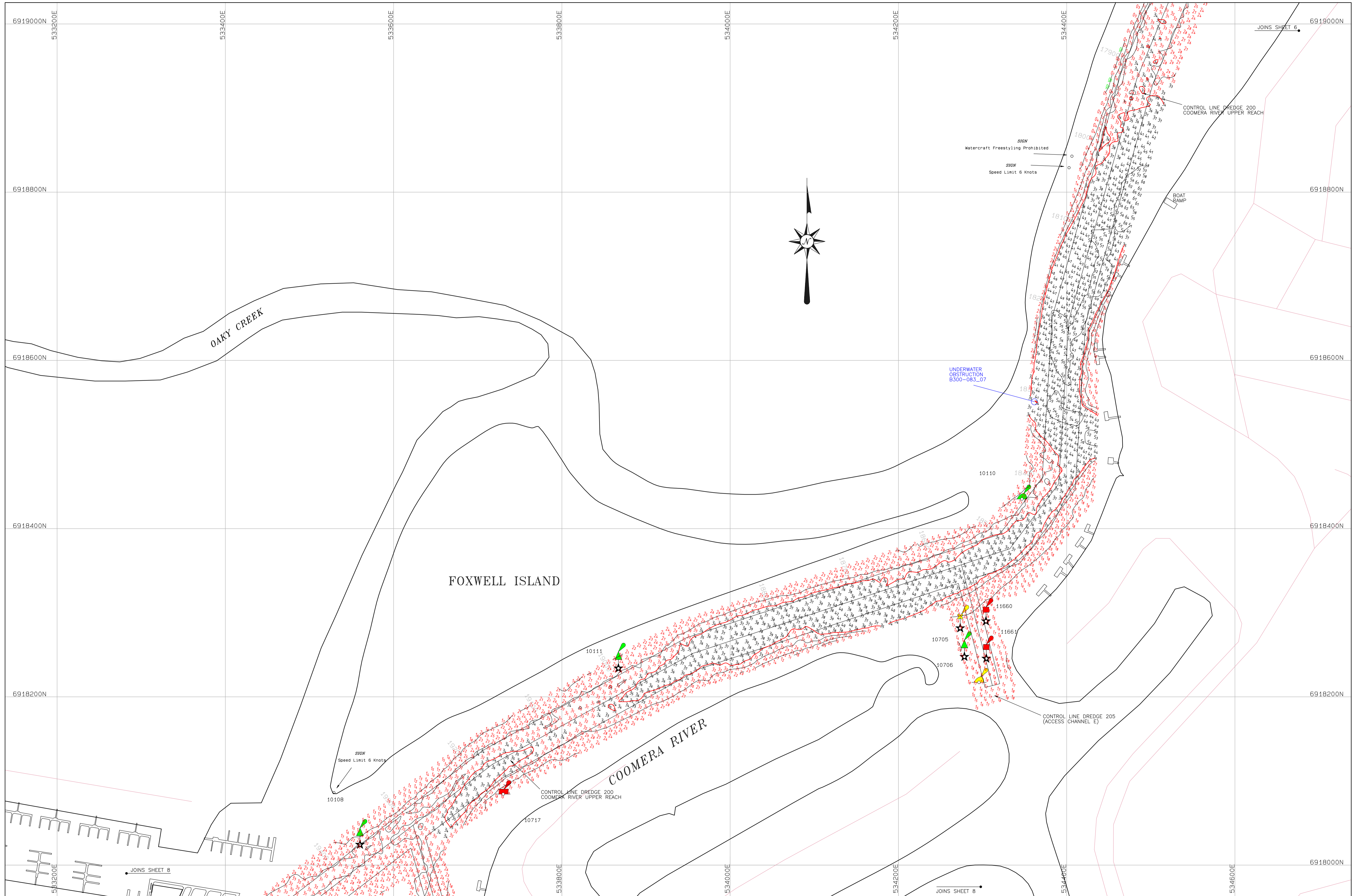
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 Hydrographic Surveyor
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Queensland Government
HYDROGRAPHIC SERVICES
 Ph: 07 5506 5500
 Email: tyne@mqg.qld.gov.au

COOMERA RIVER
SANCTUARY COVE (Ch 15500) TO GOLD COAST CITY MARINA (Ch 20800)
DREDGE SUPPORT HYDROGRAPHIC SURVEY
1 JULY 2019

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NOTES:
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 5) Vertical control for the survey was based on the the Applanix Navemaster V5 RTK-GPS survey system using HxGN SmartNet Service.
 6) Soundings reduced to LAT datum using LAT separation model: C:\G019_coast_region_20190124_SNA.v1.
 7) Horizontal and vertical position check carried out over RN 189792 23/02/2019.
 8) Channel linework and chainages based on Cgd Files Coomera River 2019.dwg provided by Tim Mackey 8/4/2019.
 9) For Object Detection Report refer to 7.....

Horizontal Datum	MGA Zone 56 (GDA94)	Eastings	533800E	Northings	6918000N
Base Station	HxGN SmartNet Service (Fixed base "ARUN")				
Vertical Datum	LAT based on				
Tide Notes	Soundings reduced to datum using RTK-GNSS observations with HxGN SmartNet Service and a MGD-LAT ellipsoid separation model. Refer to Note 6				
Depth Tolerance	0.2m	Horizontal Tolerance	1.5m	Weather	5-10 kt SE
Vessel	GG Kallinga				
Echo Sounder	Kongsberg Geoswath CONNECT PLUS 3000Hz				
Heave Meter	APPLANIX NAVEMASTER (OW 9.80 Fw 3.77)				
Horizontal Positioning	APPLANIX NAVEMASTER (OW 9.80 Fw 3.77)				
Data Collection/Processing	CARIS HIPS 6.0.18 v10.4.10 (RECORDED LOG)				
Tidal Reference Station	TS 100025, TS 045206A, TS100501				

SOUNDINGS (m)	2.5 below datum
	0.7 above datum
LEVELS (m)	0.5 above datum
	0.3 below datum

SCALE 1 : 500 AT A1

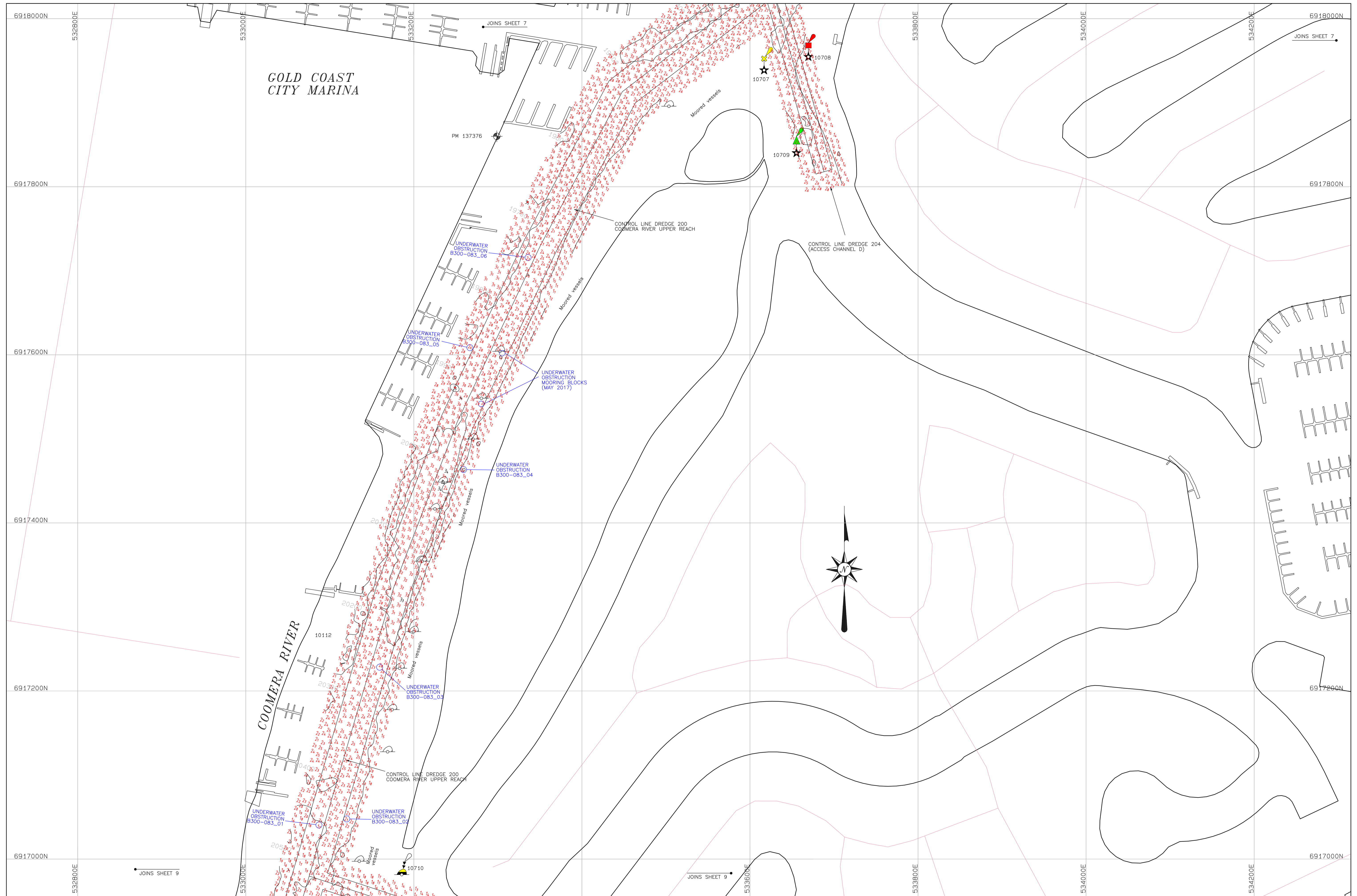
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 Surveyor
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 1 JULY 2019
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- Vertical control for the survey was based on the the Applianix Navemaster V5 RTK-GPS survey system using HxGN SmartNet Service.
- Soundings reduced to LAT datum using LAT separation model: \\gold_coast_region_20190124_SNA.v1.
- Horizontal and vertical position check carried out over PM 189792 on 23/07/2019.
- Channel linework and chainages based on Csd Files Coomera River 2019.dwg provided by Tim Mackey 8/4/2019
- For Object Detection Report refer to 7.....

Horizontal Datum	MGA Zone 56 (GD494)	Easting	Northing
Base Station	HxGN SmartNet Service (Fixed base "ARUN")		
Vertical Datum	LAT based on		
Tide Notes	Soundings reduced to datum using RTK-GNSS observations with HxGN SmartNet Service and a MGA-LAT ellipsoid separation model. Refer to Note 6		
Depth Tolerance	0.2m	Horizontal Tolerance	1.5m
Weather	5-10 kt SE		

Vessel	GG Kalinga	SOUNDINGS (m)	2.5 below datum
Echo Sounder	Zongsong Geoswath COMBAT PLUS 300MHz		0.7 above datum
Heave meter	APPLANIX NAVEMASTER (OW 9.80 Fm 9.77)	LEVELS (m)	0.5 above datum
Horizontal Positioning	APPLANIX NAVEMASTER (OW 9.80 Fm 9.77)		0.3 below datum
Data Collection/Processing	HxGN SmartNet Service (OW 9.80 Fm 9.77)		
Tidal Reference Station	TS 100025, TS 045206A, TS100501		

SCALE 1 : 500 AT A1

CLASS **C** CLIENT **GCWA**

*SEE NOTES

Signature: [Blank]

Hydrographic Surveyor: [Blank]

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HYDROGRAPHIC SERVICES

Ph: (07) 5506 5550
Email: hydro@maq.qld.gov.au

COOMERA RIVER

SANCTUARY COVE (Ch 15500) TO GOLD COAST CITY MARINA (Ch 20800)

DREDGE SUPPORT HYDROGRAPHIC SURVEY

1 JULY 2019

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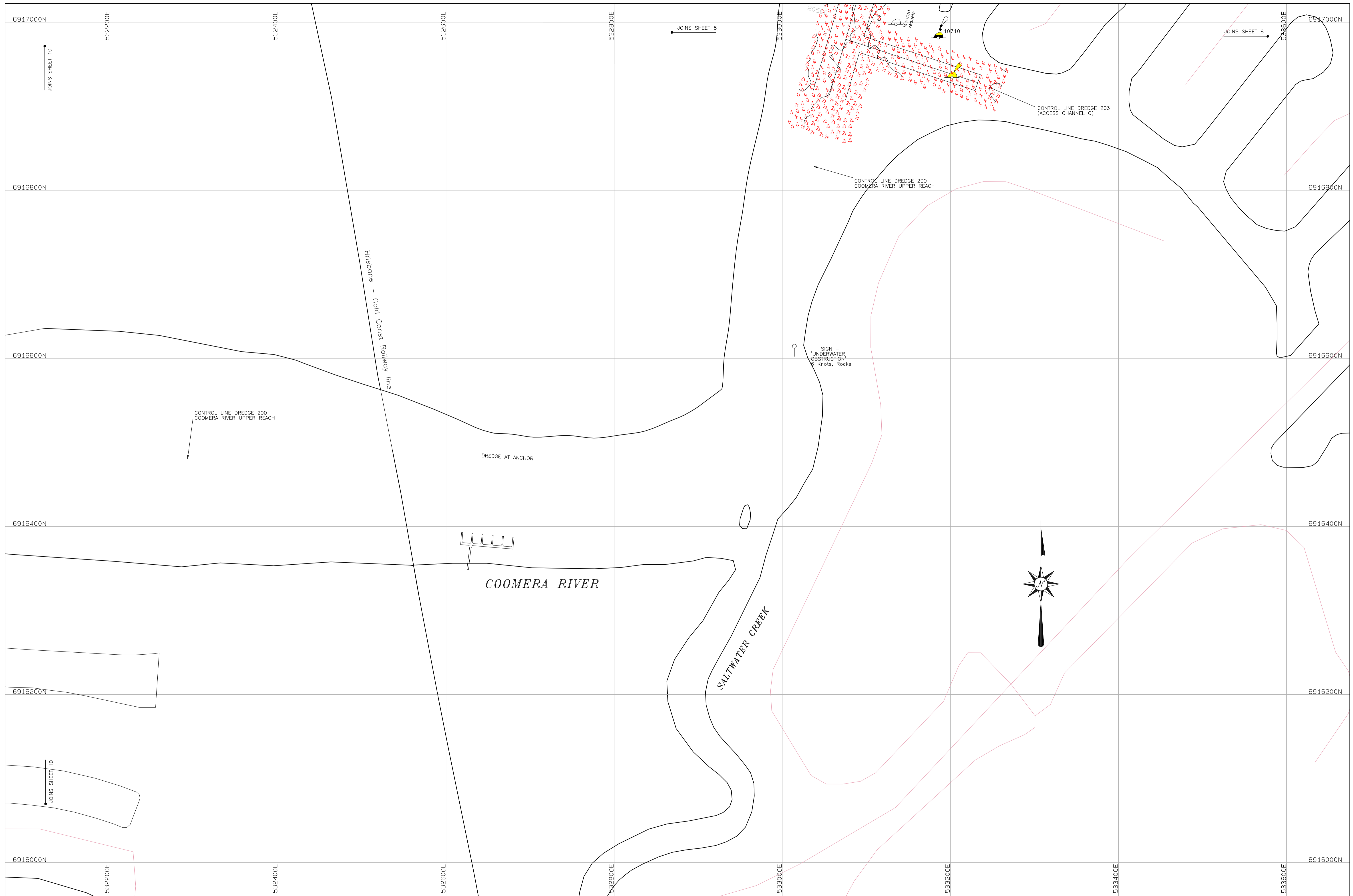
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NOTES:
 1) This survey meets the mandatory class requirement as outlined in the MSG document 'Standards for Hydrographic Surveys within Queensland Waters V1.3'
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 4) Soundings coloured to clearance depth of 3.4 m LAT for the Main Channel and 2.5m LAT for the North Arm.
 5) Vertical control for the survey was based on the the Applanix Navemaster V5 RTK-GPS survey system using HxGN SmartNet Service.
 6) Soundings reduced to LAT datum using LAT separation model: C:\Users\Tm\Documents\20190124_SNA.v1.
 7) Horizontal and vertical position check carried out over RN 189796 23/09/2019.
 8) Channel linework and chainages based on Cgd Files Coomera River 2019.dwg provided by Tim Healey 8/4/2019.
 9) For Object Detection Report refer to 7.....

Horizontal Datum	MGA Zone 56 (GDA84)	Easting	Northing
Base Station	HxGN SmartNet Service (Fixed base "ARUN")		
Vertical Datum	LAT based on		
Tide Notes	Soundings reduced to datum using RTK-GNSS observations with HxGN SmartNet Service and a MSG-LAT ellipsoidal separation model. Refer to Note 6		
Depth Tolerance	0.2m	Horizontal Tolerance	1.5m
Weather	5-10 kt SE		
Vessel	GG Kalinga	Echo Sounder	Zongsong Geoswath Compact Plus 300Hz
Heave Meter	APPLANIX NAVEMASTER (SW 9.80 FW 9.79)	Horizontal Positioning	APPLANIX NAVEMASTER (SW 9.80 FW 9.79)
Data Collection/Processing	RTK-GNSS (RTK-GNSS) (SW 9.80 FW 9.79) (SW 9.80 FW 9.79) (SW 9.80 FW 9.79)		
Tidal Reference Station	TS 100025, TS 045206A, TS100501		

SOUNDINGS (m)
 2.5 below datum
 0.7 above datum

LEVELS (m)
 0.5 above datum
 0.3 below datum

SCALE 1 : 500 AT A1

CLASS C CLIENT **GCWA**

*SEE NOTES

Signature
 Hydrographic Surveyor
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Queensland Government
 HYDROGRAPHIC SERVICES
 Ph: 07 5506 5500
 Email: tyne@mqd.qld.gov.au

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 1 JULY 2019

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