



[LinkedFiles\GAB_BCH1\Samples\W13_007750_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Sample Analyses Completed:

No results to date

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007751**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Upper Intertidal

Local Date Time: 25/09/2015 11:16:23 AM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

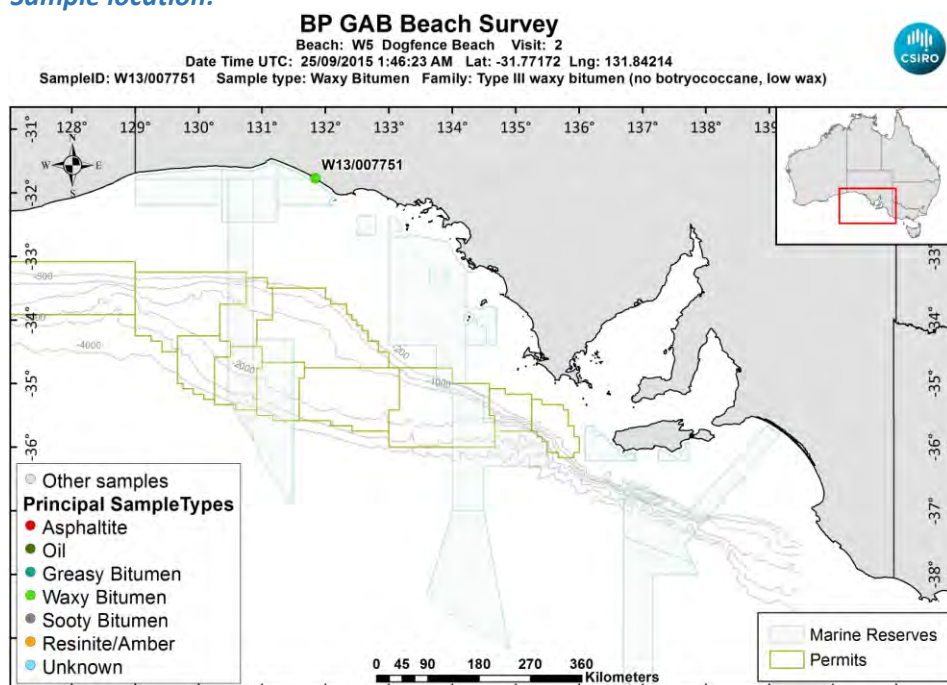
Size (cm): 5.6

Latitude (Y): -31.771715

Weight (gm): 19.3

Longitude (X): 131.842138

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007751_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007751_146A1827.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007751_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007751_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

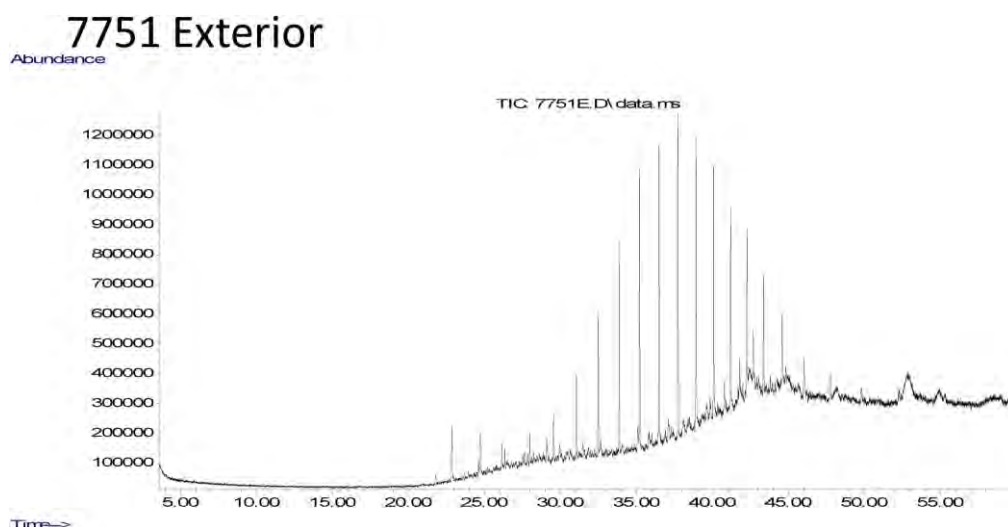
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.84	percent	Y
Inorg	Hydrogen			6.46992286282306	percent	Y
Inorg	Nitrogen			0.24	percent	Y
Inorg	Sulphur			0.820791505589354	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007751_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007751_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

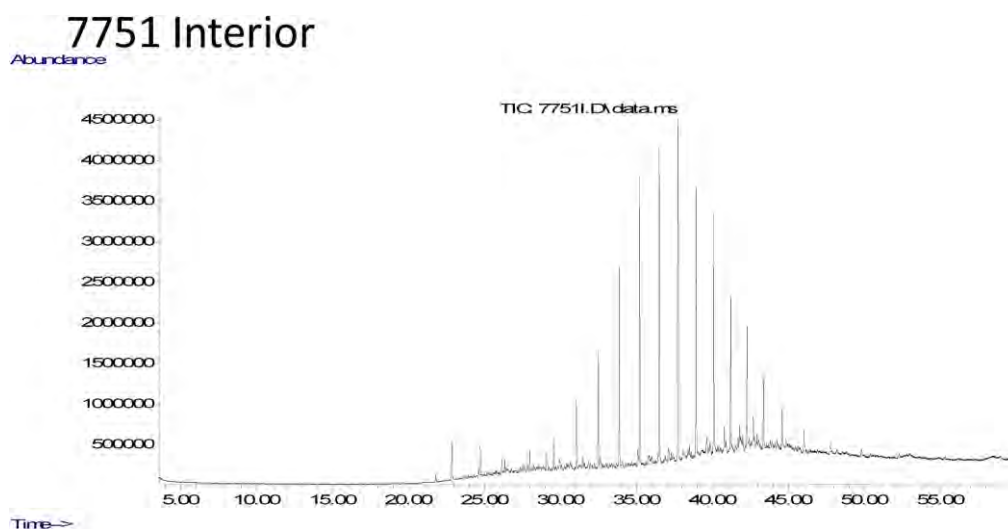
Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Ratio	nC18/Phytane		0.258860971409192		ug/L	Y
Ratio	Pristane/Phytane		1.44759486339258		ug/L	Y
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230	256931		ug/L	Z
Aliph	nC19	26.3410	372508		ug/L	Z
Aliph	nC20	27.9810	542080		ug/L	Z
Aliph	nC21	29.5510	783113		ug/L	Z
Aliph	nC22	31.0540	1454425		ug/L	Z
Aliph	nC23	32.4960	2486785		ug/L	Z
Aliph	nC24	33.8800	3447915		ug/L	Z
Aliph	nC25	35.2120	4578083		ug/L	Z
Aliph	nC26	36.4960	4714589		ug/L	Z
Aliph	nC27	37.7300	5444874		ug/L	Z
Aliph	nC28	38.9260	4842560		ug/L	Z
Aliph	nC29	40.0740	4412827		ug/L	Z
Aliph	nC30	41.1930	3453739		ug/L	Z
Aliph	nC31	42.2750	2929798		ug/L	Z
Aliph	nC32	43.3560	2373062		ug/L	Z
Aliph	nC33	44.5840	1771620		ug/L	Z
Aliph	nC34	46.0130	1172093		ug/L	Z
Aliph	nC35	47.7140	817934		ug/L	Z
Aliph	nC36	49.7870	612257		ug/L	Z
Aliph	nC37	52.2630	530255		ug/L	Z
Aliph	nC38	55.2360	350116		ug/L	Z
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010	309631		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Phytane	24.7190	992544	ug/L	Z
Aliph	Pristane	22.8660	1436801	ug/L	Z

Results for: GCMS with Full Scan**Unique ID:** W13/007751 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007751_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Ratio	nC18/Phytane			0.223424404709621	ug/L	Y
Ratio	Pristane/Phytane			1.46792471713829	ug/L	Y
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230	581090		ug/L	Z
Aliph	nC19	26.3410	827597		ug/L	Z
Aliph	nC20	27.9810	1338025		ug/L	Z
Aliph	nC21	29.5510	2092626		ug/L	Z
Aliph	nC22	31.0540	4240156		ug/L	Z
Aliph	nC23	32.4960	7774143		ug/L	Z
Aliph	nC24	33.8800	12702850		ug/L	Z
Aliph	nC25	35.2120	17830031		ug/L	Z
Aliph	nC26	36.4960	19889317		ug/L	Z
Aliph	nC27	37.7300	21206271		ug/L	Z
Aliph	nC28	38.9260	16516782		ug/L	Z
Aliph	nC29	40.0740	13831892		ug/L	Z
Aliph	nC30	41.1930	9565805		ug/L	Z
Aliph	nC31	42.2750	7803022		ug/L	Z
Aliph	nC32	43.3560	5418929		ug/L	Z
Aliph	nC33	44.5840	3911337		ug/L	Z
Aliph	nC34	46.0130	2378119		ug/L	Z
Aliph	nC35	47.7140	1358272		ug/L	Z
Aliph	nC36	49.7870	991980		ug/L	Z
Aliph	nC37	52.2630	677558		ug/L	Z
Aliph	nC38	55.2360	675217		ug/L	Z
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010	825852		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Phytane	24.7190	2600834	ug/L	Z
Aliph	Pristane	22.8660	3817828	ug/L	Z

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007752**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 25/09/2015 12:00:08 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

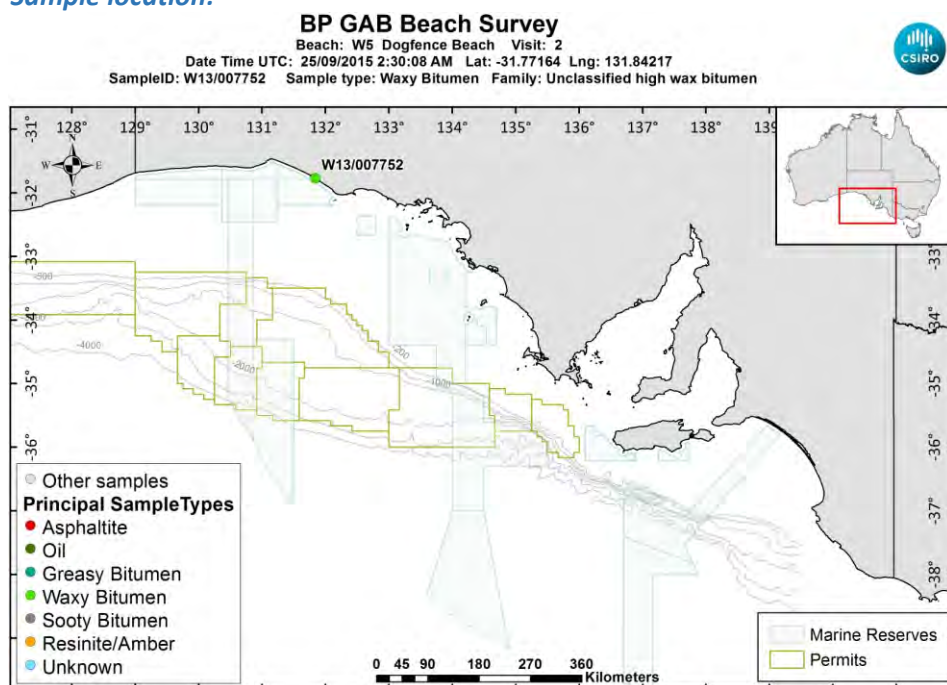
Size (cm): 1.9

Latitude (Y): -31.771640

Weight (gm): 1

Longitude (X): 131.842173

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007752_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007752_146A1851.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007752_Photo03.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007752_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			85.25	percent	Y
Inorg	Hydrogen			7.51379761431412	percent	Y
Inorg	Nitrogen			0.3	percent	Y
Inorg	Sulphur			2.63011612168593	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007752 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 18/11/2016

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007752_bulk_WholeOil.jpg](#)

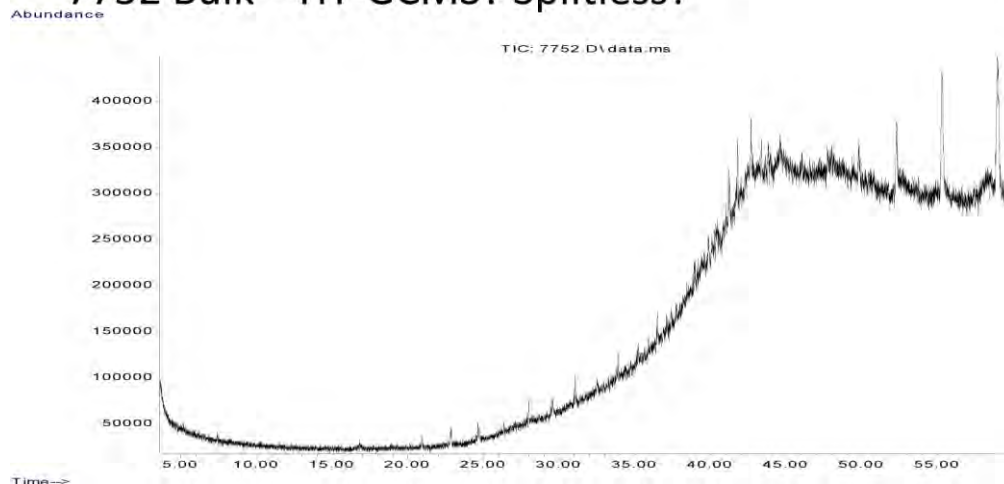
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7752 Bulk – HT-GCMS? Splitless?



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Ratio	nC17/nC35			0.2986149837558	ug/L	Y
Ratio	nC17/Pristane			1.04503201403123	ug/L	Y
Ratio	nC18/Phytane			1.45604735199445	ug/L	Y
Ratio	Pristane/Phytane			1.06184769756671	ug/L	Y
Aliph	Botryococcane	39.4290			ug/L	U
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580	29301		ug/L	Z
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180	83467		ug/L	Z
Aliph	nC15	18.9260	44300		ug/L	Z
Aliph	nC16	20.9240	80227		ug/L	Z
Aliph	nC17	22.8190	98908		ug/L	Z
Aliph	nC18	24.6230	129782		ug/L	Z
Aliph	nC19	26.3410	94275		ug/L	Z
Aliph	nC20	27.9810	159065		ug/L	Z
Aliph	nC21	29.5510	78202		ug/L	Z
Aliph	nC22	31.0540	148121		ug/L	Z
Aliph	nC23	32.4960	90125		ug/L	Z
Aliph	nC24	33.8800	170592		ug/L	Z
Aliph	nC25	35.2120	93268		ug/L	Z
Aliph	nC26	36.4960	133440		ug/L	Z
Aliph	nC27	37.7300	76913		ug/L	Z
Aliph	nC28	38.9260			ug/L	U
Aliph	nC29	40.0740			ug/L	U
Aliph	nC30	41.1930			ug/L	U
Aliph	nC31	42.2750			ug/L	U
Aliph	nC32	43.3560			ug/L	U
Aliph	nC33	44.5840			ug/L	U
Aliph	nC34	46.0130			ug/L	U
Aliph	nC35	47.7140	331223		ug/L	Z
Aliph	nC36	49.7870	603658		ug/L	Z
Aliph	nC37	52.2630	1134805		ug/L	Z
Aliph	nC38	55.2360	2159647		ug/L	Z

Results for: GCMS with Full Scan

Aliph	nC39	58.9110	2795493	ug/L	Z
Aliph	Norpristane	21.8010		ug/L	U
Aliph	Phytane	24.7190	89133	ug/L	Z
Aliph	Pristane	22.8660	94646	ug/L	Z

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007753**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 25/09/2015 12:02:12 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

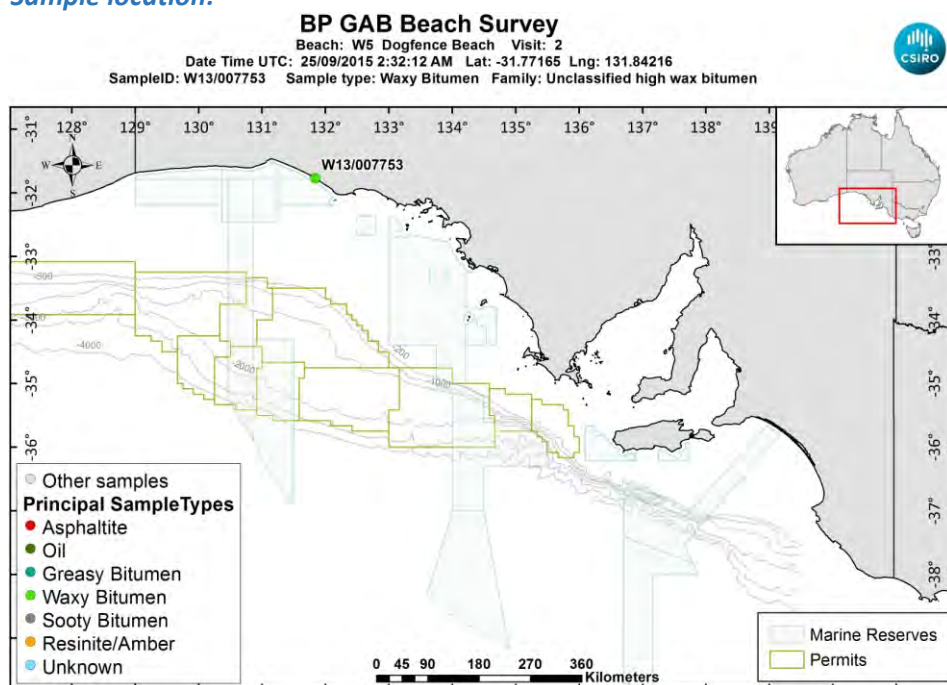
Size (cm): 2.4

Latitude (Y): -31.771647

Weight (gm): 1.3

Longitude (X): 131.842160

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007753_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007753_146A1852.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007753_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007753_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:

				(default units ppb)		
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			86.07	percent	Y
Inorg	Hydrogen			8.36701749502982	percent	Y
Inorg	Nitrogen			0.29	percent	Y
Inorg	Sulphur			4.11147995951095	percent	Y

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007754**

Beach W5: Dogfence Beach Visit: 2

Comments:

2.8

Location: Shore Upper

Local Date Time: 25/09/2015 12:03:34 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

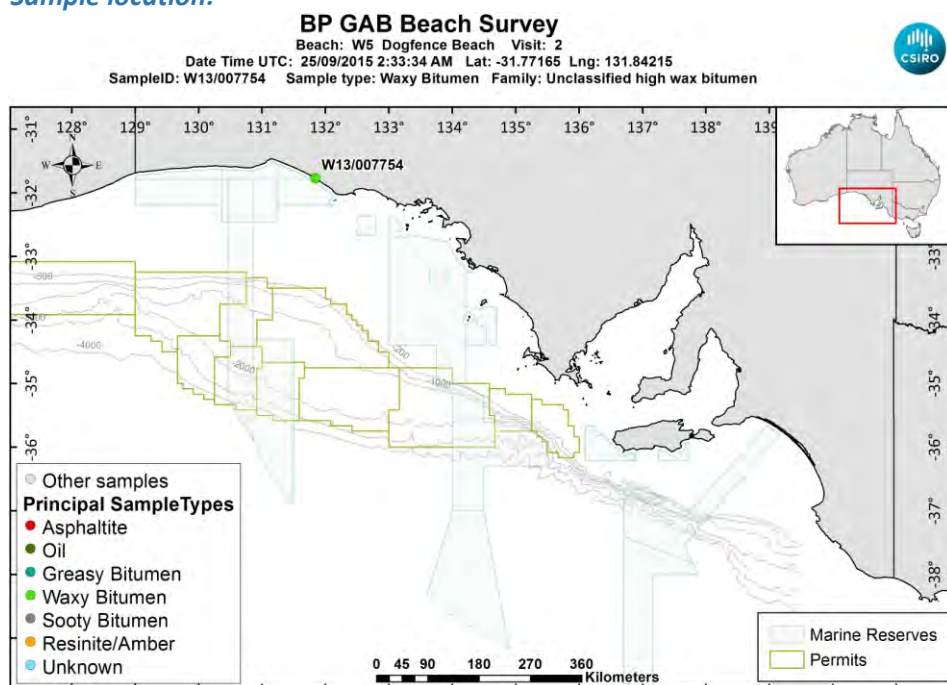
Size (cm): 0

Latitude (Y): -31.771652

Weight (gm): 3.1

Longitude (X): 131.842150

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007754_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007754_146A1853.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007754_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007754_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.94	percent	Y
Inorg	Hydrogen			8.34950298210736	percent	Y
Inorg	Nitrogen			0.304312682090831	percent	Y
Inorg	Sulphur			3.1088768463067	percent	Y

(default units ppb)

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007755**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 25/09/2015 12:05:34 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

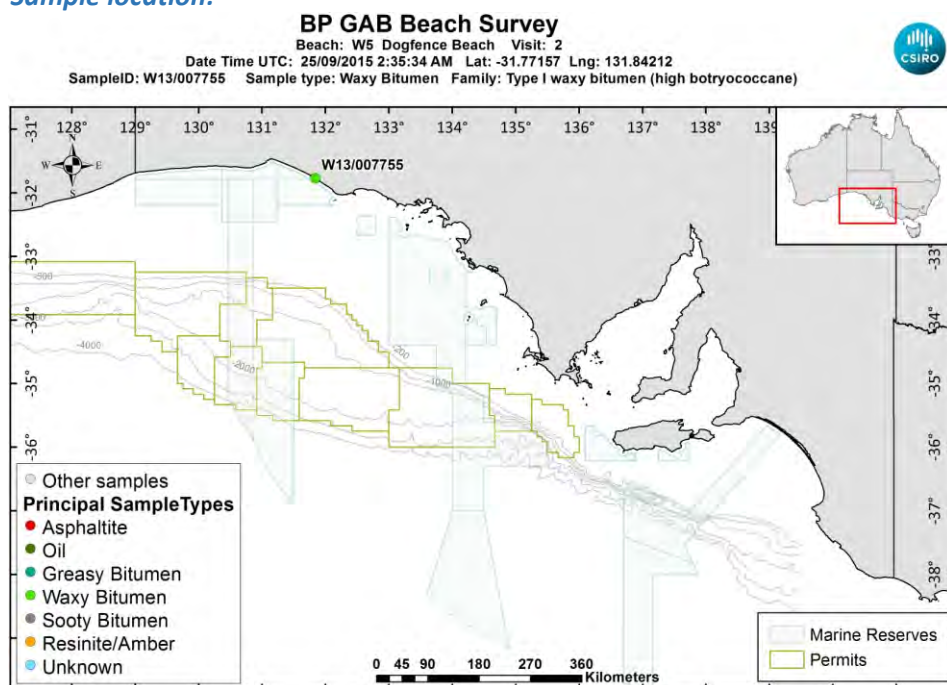
Size (cm): 2.5

Latitude (Y): -31.771567

Weight (gm): 3

Longitude (X): 131.842117

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007755_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007755_146A1854.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007755_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007755_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			89.47	percent	Y
Inorg	Hydrogen			6.57342783300199	percent	Y
Inorg	Nitrogen			0.329569837189374	percent	Y
Inorg	Sulphur			0.85290857020992	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007755 DISS GCMS-Scan/02

Instrument / Type: GCMS with Full Scan Run: 2

for Analysis: Whole Oils

Analysis Date: 18/11/2016

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007755_int_WholeOil.jpg](#)

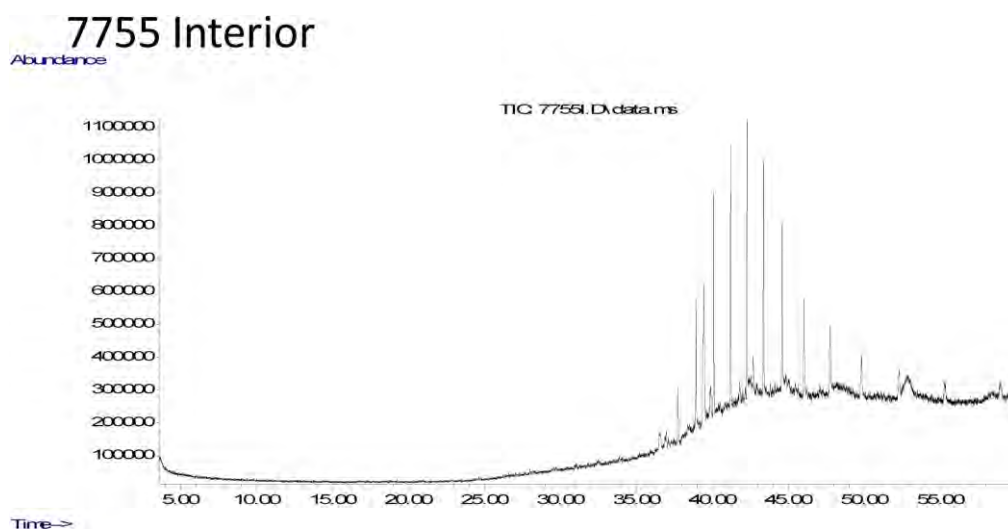
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**

Comment: Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	3898046		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120			ug/L	U
Aliph	nC26	36.4960	281175		ug/L	Z
Aliph	nC27	37.7300	823409		ug/L	Z
Aliph	nC28	38.9260	2028864		ug/L	Z
Aliph	nC29	40.0740	3531101		ug/L	Z
Aliph	nC30	41.1930	4267766		ug/L	Z
Aliph	nC31	42.2750	4356883		ug/L	Z
Aliph	nC32	43.3560	4299655		ug/L	Z
Aliph	nC33	44.5840	3130547		ug/L	Z
Aliph	nC34	46.0130	2687425		ug/L	Z
Aliph	nC35	47.7140	1972923		ug/L	Z
Aliph	nC36	49.7870	1484560		ug/L	Z
Aliph	nC37	52.2630	1126237		ug/L	Z
Aliph	nC38	55.2360	879574		ug/L	Z
Aliph	nC39	58.9110	776808		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007756**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 25/09/2015 12:07:33 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

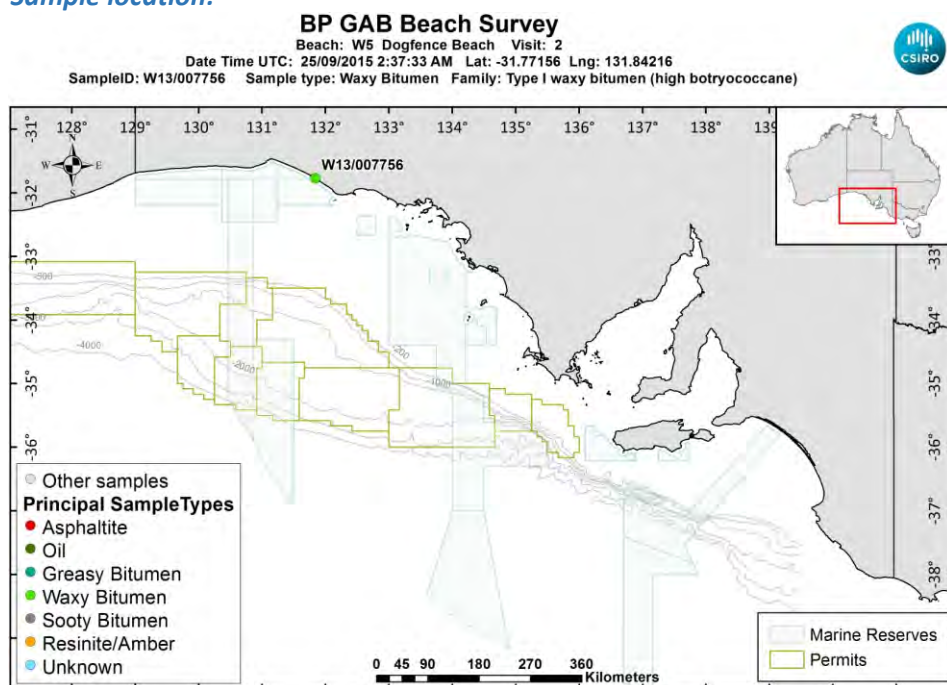
Size (cm): 4.7

Latitude (Y): -31.771565

Weight (gm): 40.4

Longitude (X): 131.842160

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007756_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007756_146A1855.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007756_Photo03.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007756_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

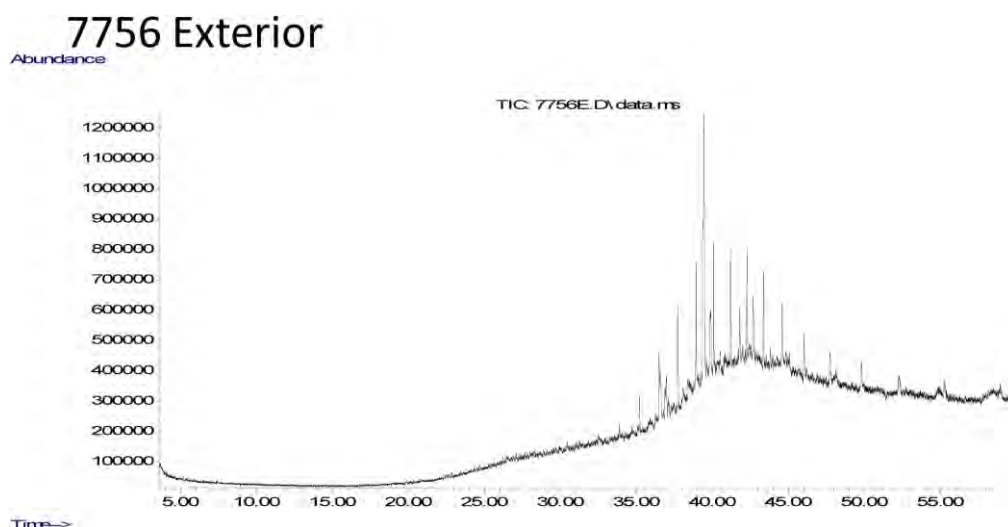
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			89.13	percent	Y
Inorg	Hydrogen			8.28735387673956	percent	Y
Inorg	Nitrogen			0.249490831191088	percent	Y
Inorg	Sulphur			1.40913262056911	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007756_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007756_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



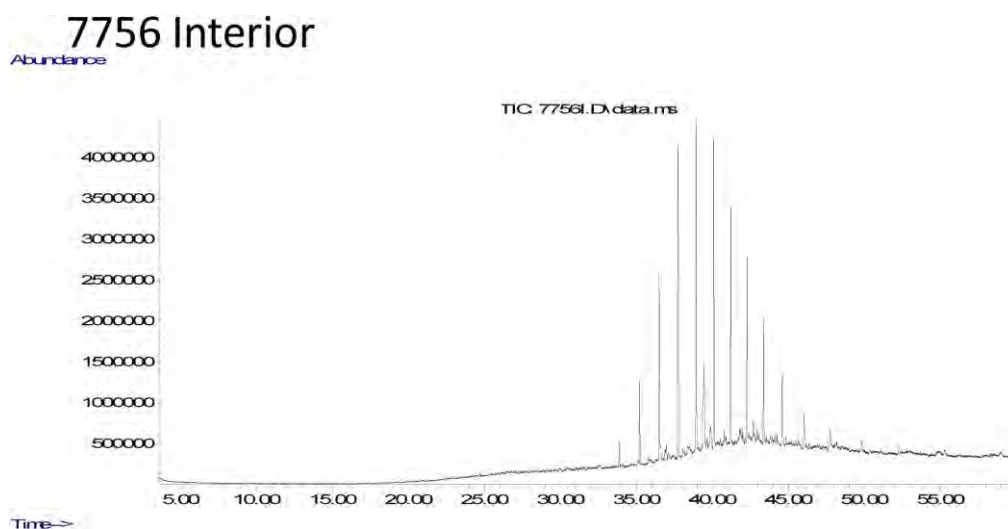
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	8175679		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	266330		ug/L	Z
Aliph	nC25	35.2120	601952		ug/L	Z
Aliph	nC26	36.4960	1089100		ug/L	Z
Aliph	nC27	37.7300	1692150		ug/L	Z
Aliph	nC28	38.9260	2156265		ug/L	Z
Aliph	nC29	40.0740	2291368		ug/L	Z
Aliph	nC30	41.1930	2053441		ug/L	Z
Aliph	nC31	42.2750	2002122		ug/L	Z
Aliph	nC32	43.3560	1601066		ug/L	Z
Aliph	nC33	44.5840	1463753		ug/L	Z
Aliph	nC34	46.0130	1168460		ug/L	Z
Aliph	nC35	47.7140	954721		ug/L	Z
Aliph	nC36	49.7870	776232		ug/L	Z
Aliph	nC37	52.2630	807758		ug/L	Z
Aliph	nC38	55.2360	789869		ug/L	Z
Aliph	nC39	58.9110	867273		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007756 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007756_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	10094472		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	1628515		ug/L	Z
Aliph	nC25	35.2120	5209457		ug/L	Z
Aliph	nC26	36.4960	11760237		ug/L	Z
Aliph	nC27	37.7300	19510552		ug/L	Z
Aliph	nC28	38.9260	20677384		ug/L	Z
Aliph	nC29	40.0740	20017765		ug/L	Z
Aliph	nC30	41.1930	14781442		ug/L	Z
Aliph	nC31	42.2750	11599629		ug/L	Z
Aliph	nC32	43.3560	8522785		ug/L	Z
Aliph	nC33	44.5840	6204872		ug/L	Z
Aliph	nC34	46.0130	4107615		ug/L	Z
Aliph	nC35	47.7140	2314810		ug/L	Z
Aliph	nC36	49.7870	1709059		ug/L	Z
Aliph	nC37	52.2630	1321514		ug/L	Z
Aliph	nC38	55.2360	907287		ug/L	Z
Aliph	nC39	58.9110	797502		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007757**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 25/09/2015 12:23:35 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

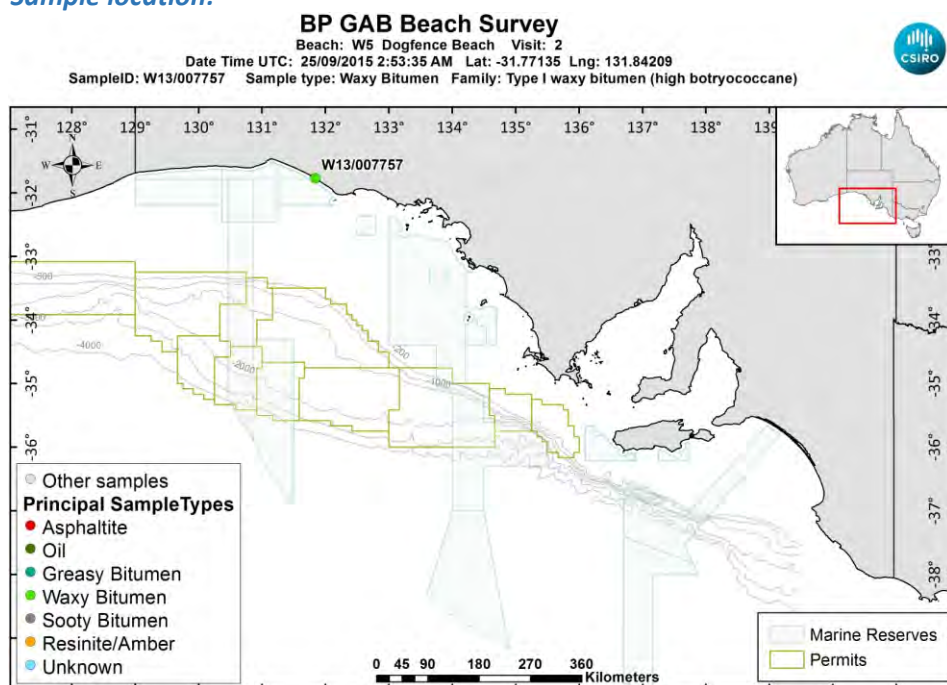
Size (cm): 6.2

Latitude (Y): -31.771353

Weight (gm): 14.1

Longitude (X): 131.842090

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007757_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007757_146A1856.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007757_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007757_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			88.18	percent	Y
Inorg	Hydrogen			5.71428787276342	percent	Y
Inorg	Nitrogen			0.276203256212511	percent	Y
Inorg	Sulphur			0.640519511093221	percent	Y

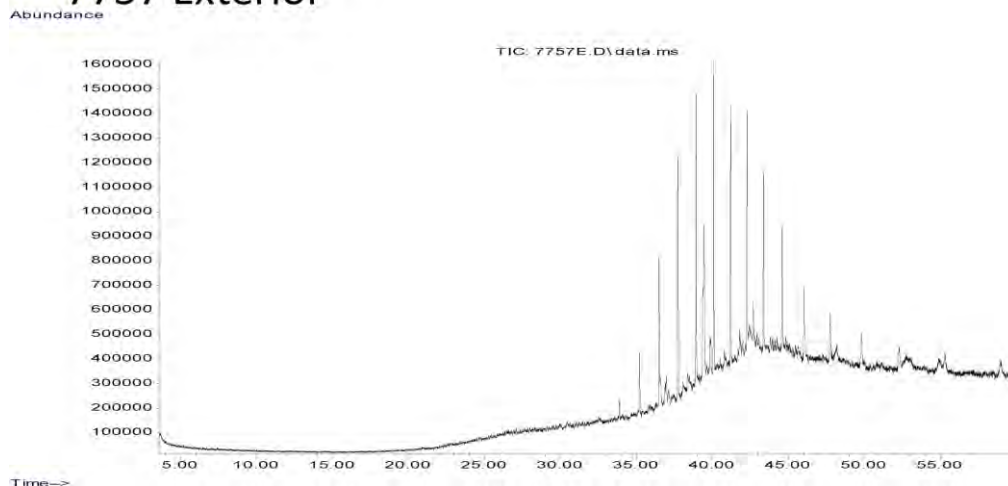
Results for: GCMS with Full Scan

Unique ID: W13/007757_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007757_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7757 Exterior



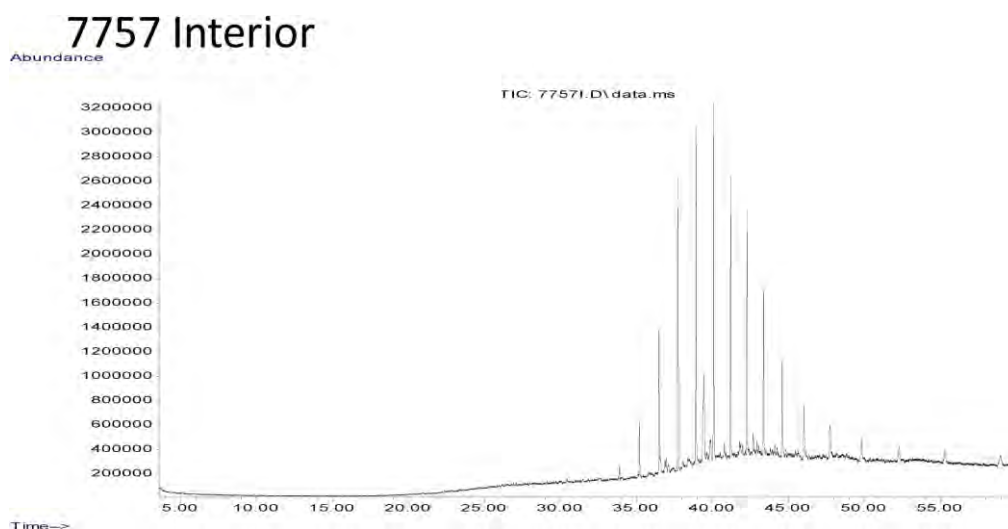
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	5997024		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	387105		ug/L	Z
Aliph	nC25	35.2120	1187258		ug/L	Z
Aliph	nC26	36.4960	3108212		ug/L	Z
Aliph	nC27	37.7300	5137879		ug/L	Z
Aliph	nC28	38.9260	6027912		ug/L	Z
Aliph	nC29	40.0740	6435153		ug/L	Z
Aliph	nC30	41.1930	5552332		ug/L	Z
Aliph	nC31	42.2750	5216824		ug/L	Z
Aliph	nC32	43.3560	4232668		ug/L	Z
Aliph	nC33	44.5840	3473862		ug/L	Z
Aliph	nC34	46.0130	2800061		ug/L	Z
Aliph	nC35	47.7140	1895451		ug/L	Z
Aliph	nC36	49.7870	1499585		ug/L	Z
Aliph	nC37	52.2630	1188411		ug/L	Z
Aliph	nC38	55.2360	932475		ug/L	Z
Aliph	nC39	58.9110	1051912		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007757 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007757_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	6887090		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800	594162		ug/L	Z
Aliph	nC25	35.2120	2219070		ug/L	Z
Aliph	nC26	36.4960	5847252		ug/L	Z
Aliph	nC27	37.7300	11905816		ug/L	Z
Aliph	nC28	38.9260	14024291		ug/L	Z
Aliph	nC29	40.0740	14998351		ug/L	Z
Aliph	nC30	41.1930	11961923		ug/L	Z
Aliph	nC31	42.2750	9906286		ug/L	Z
Aliph	nC32	43.3560	7571407		ug/L	Z
Aliph	nC33	44.5840	5663845		ug/L	Z
Aliph	nC34	46.0130	3810913		ug/L	Z
Aliph	nC35	47.7140	2766531		ug/L	Z
Aliph	nC36	49.7870	2090620		ug/L	Z
Aliph	nC37	52.2630	1543430		ug/L	Z
Aliph	nC38	55.2360	1412501		ug/L	Z
Aliph	nC39	58.9110	1370760		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007758**

Beach W5: Dogfence Beach Visit: 2

Comments:

transect 5 representative samples not individually collected

Location: Upper Intertidal

Local Date Time: 25/09/2015 12:50:54 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

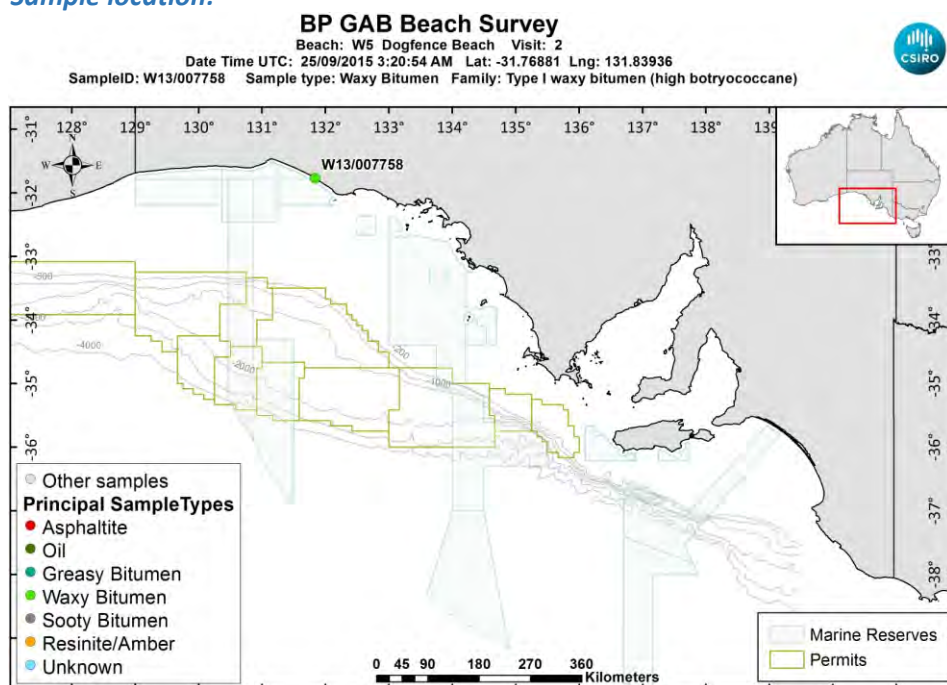
Size (cm): 0

Latitude (Y): -31.768813

Weight (gm): 1.7

Longitude (X): 131.839365

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007758_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007758_Photo02.JPG](#)

Sample ID : W13/007758**Beach W5: Dogfence Beach Visit: 2****Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007758_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:*(default units ppb)*

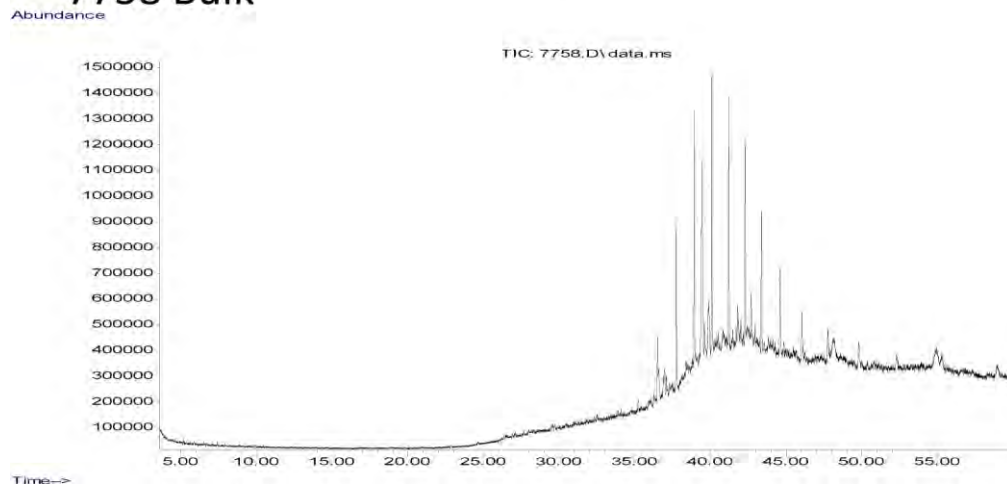
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.95	percent	Y
Inorg	Hydrogen			8.79903777335984	percent	Y
Inorg	Nitrogen			0.322271636675236	percent	Y
Inorg	Sulphur			1.54763901413164	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007758_DISS_GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 18/11/2016**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007758_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment: Bulk			

Results for: GCMS with Full Scan

7758 Bulk



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	7064489		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	236071		ug/L	Z
Aliph	nC26	36.4960	1214663		ug/L	Z
Aliph	nC27	37.7300	3403708		ug/L	Z
Aliph	nC28	38.9260	5040999		ug/L	Z
Aliph	nC29	40.0740	5772070		ug/L	Z
Aliph	nC30	41.1930	4694092		ug/L	Z
Aliph	nC31	42.2750	4141181		ug/L	Z
Aliph	nC32	43.3560	3256424		ug/L	Z
Aliph	nC33	44.5840	2301414		ug/L	Z
Aliph	nC34	46.0130	1532488		ug/L	Z
Aliph	nC35	47.7140	1109957		ug/L	Z
Aliph	nC36	49.7870	968641		ug/L	Z
Aliph	nC37	52.2630	721602		ug/L	Z
Aliph	nC38	55.2360	575673		ug/L	Z
Aliph	nC39	58.9110	1814363		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007759**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 25/09/2015 1:13:24 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

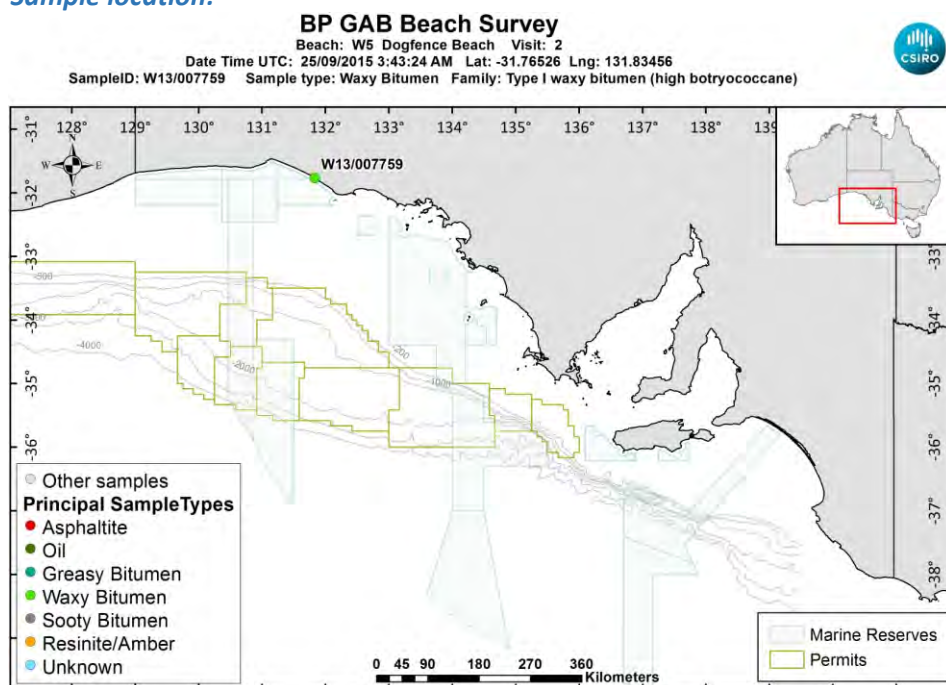
Size (cm): 6.2

Latitude (Y): -31.765260

Weight (gm): 27.8

Longitude (X): 131.834557

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007759_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007759_146A1857.JPG](#)

Sample - laboratory image:



LinkedFiles\GAB_BCH1\Samples\W13_007759_Photo03.JPG

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007759_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

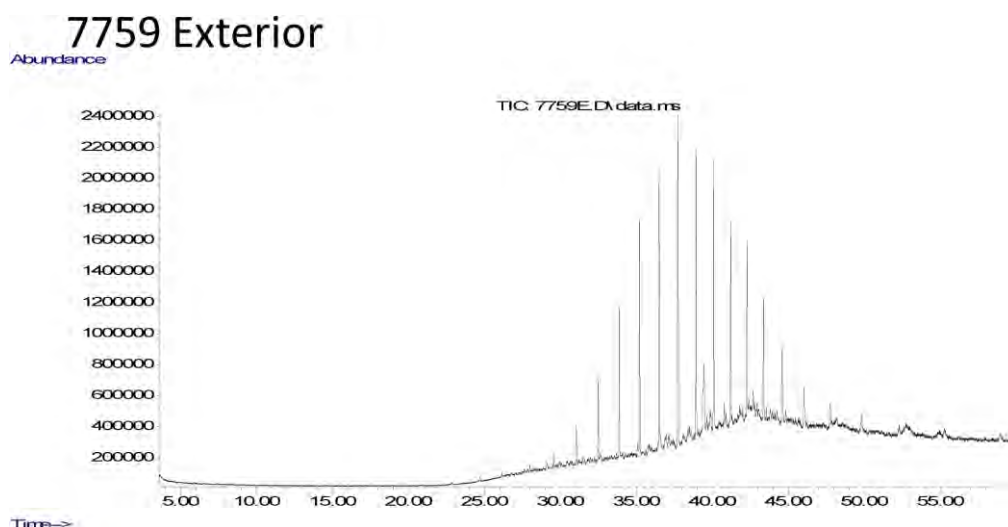
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			86.96	percent	Y
Inorg	Hydrogen			6.43866123260437	percent	Y
Inorg	Nitrogen			0.255551413881748	percent	Y
Inorg	Sulphur			1.04469987781992	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007759_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007759_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



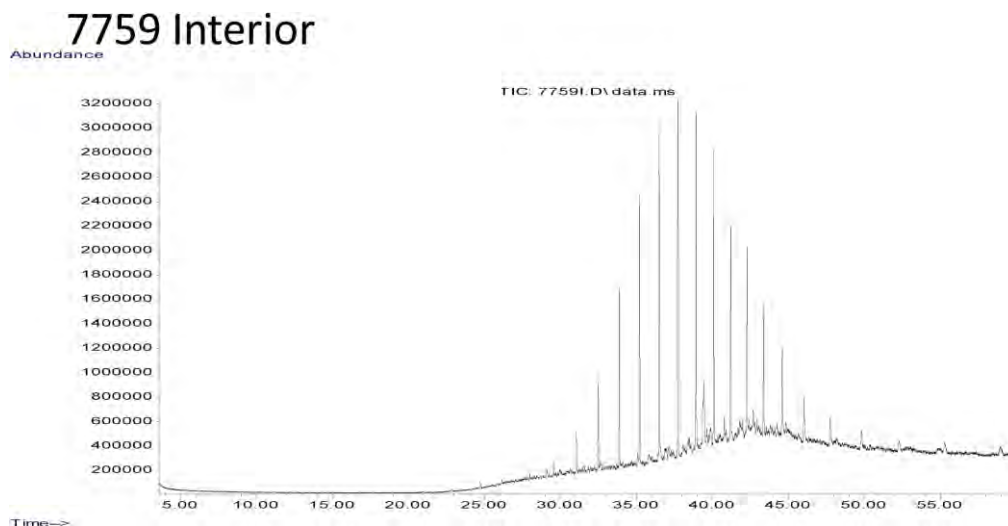
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	4083863		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810	144212		ug/L	Z
Aliph	nC21	29.5510	423345		ug/L	Z
Aliph	nC22	31.0540	1172767		ug/L	Z
Aliph	nC23	32.4960	2763144		ug/L	Z
Aliph	nC24	33.8800	5175265		ug/L	Z
Aliph	nC25	35.2120	7298887		ug/L	Z
Aliph	nC26	36.4960	10045256		ug/L	Z
Aliph	nC27	37.7300	10617307		ug/L	Z
Aliph	nC28	38.9260	9640372		ug/L	Z
Aliph	nC29	40.0740	9158773		ug/L	Z
Aliph	nC30	41.1930	6902120		ug/L	Z
Aliph	nC31	42.2750	5672970		ug/L	Z
Aliph	nC32	43.3560	4670359		ug/L	Z
Aliph	nC33	44.5840	3517959		ug/L	Z
Aliph	nC34	46.0130	2261550		ug/L	Z
Aliph	nC35	47.7140	1528351		ug/L	Z
Aliph	nC36	49.7870	1313655		ug/L	Z
Aliph	nC37	52.2630	609182		ug/L	Z
Aliph	nC38	55.2360	894137		ug/L	Z
Aliph	nC39	58.9110	15389		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190	228353		ug/L	Z
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007759 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007759_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Ratio	Pristane/Phytane			0.286153033522766	ug/L	Y
Aliph	Botryococcane	39.4290	5031961		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810	281025		ug/L	Z
Aliph	nC21	29.5510	576685		ug/L	Z
Aliph	nC22	31.0540	1685282		ug/L	Z
Aliph	nC23	32.4960	4041068		ug/L	Z
Aliph	nC24	33.8800	7631959		ug/L	Z
Aliph	nC25	35.2120	11265917		ug/L	Z
Aliph	nC26	36.4960	13609738		ug/L	Z
Aliph	nC27	37.7300	15868121		ug/L	Z
Aliph	nC28	38.9260	13361289		ug/L	Z
Aliph	nC29	40.0740	11828440		ug/L	Z
Aliph	nC30	41.1930	9386339		ug/L	Z
Aliph	nC31	42.2750	8106612		ug/L	Z
Aliph	nC32	43.3560	6300554		ug/L	Z
Aliph	nC33	44.5840	4760643		ug/L	Z
Aliph	nC34	46.0130	3108264		ug/L	Z
Aliph	nC35	47.7140	2009460		ug/L	Z
Aliph	nC36	49.7870	1676955		ug/L	Z
Aliph	nC37	52.2630	1409649		ug/L	Z
Aliph	nC38	55.2360	1115125		ug/L	Z
Aliph	nC39	58.9110	1576878		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190	328278		ug/L	Z

Results for: GCMS with Full Scan

Aliph	Pristane	22.8660	93938	ug/L	Z
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Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007760**

Beach W5: Dogfence Beach Visit: 2

Comments:

Location: Shore Upper

Local Date Time: 25/09/2015 1:27:40 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

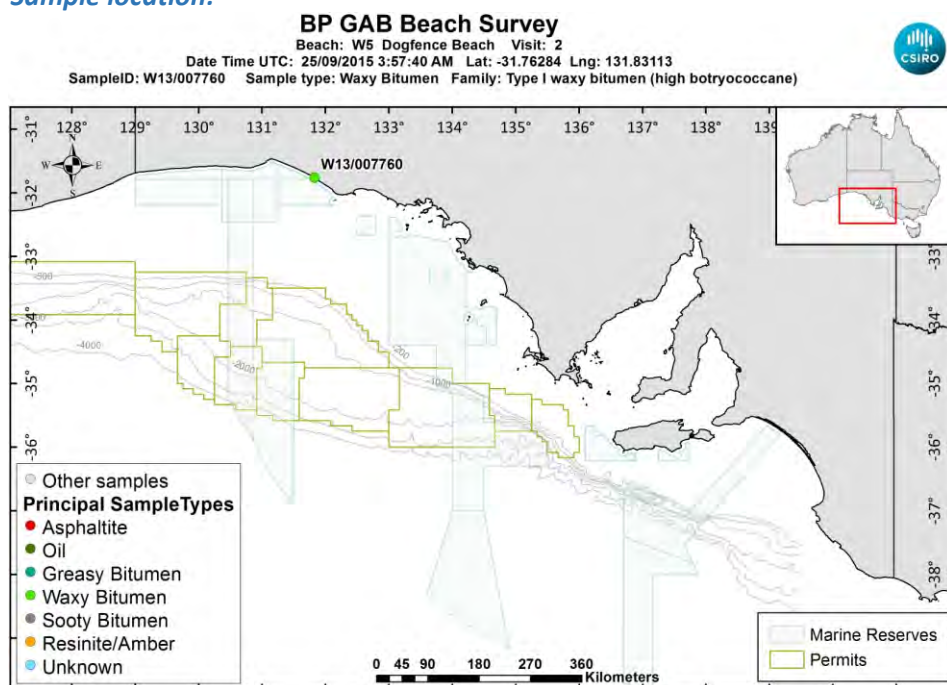
Size (cm): 4.6

Latitude (Y): -31.762843

Weight (gm): 11.5

Longitude (X): 131.831130

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007760_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007760_146A1859.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007760_Photo03.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
2	Whole Oils	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007760_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

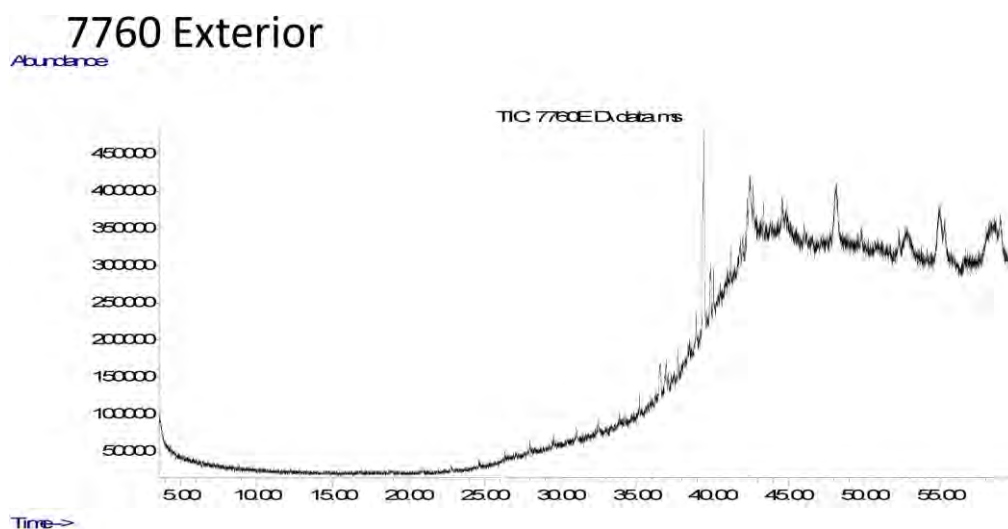
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			98.23	percent	Y
Inorg	Hydrogen			9.16618051689861	percent	Y
Inorg	Nitrogen			0.398866838046272	percent	Y
Inorg	Sulphur			1.69834014224296	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007760_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007760_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan



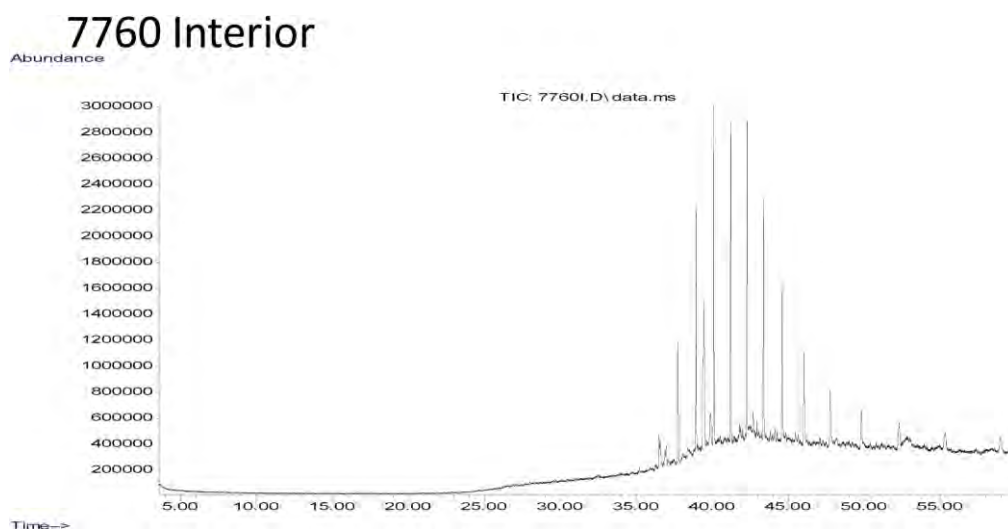
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	2578398		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120			ug/L	U
Aliph	nC26	36.4960			ug/L	U
Aliph	nC27	37.7300	232672		ug/L	Z
Aliph	nC28	38.9260	238268		ug/L	Z
Aliph	nC29	40.0740	269491		ug/L	Z
Aliph	nC30	41.1930	261045		ug/L	Z
Aliph	nC31	42.2750	277018		ug/L	Z
Aliph	nC32	43.3560	286192		ug/L	Z
Aliph	nC33	44.5840	294111		ug/L	Z
Aliph	nC34	46.0130	202771		ug/L	Z
Aliph	nC35	47.7140			ug/L	U
Aliph	nC36	49.7870			ug/L	U
Aliph	nC37	52.2630			ug/L	U
Aliph	nC38	55.2360			ug/L	U
Aliph	nC39	58.9110			ug/L	U
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007760 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 18/11/2016**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007760_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	39.4290	10935523		ug/L	Z
Aliph	nC10	0.0000			ug/L	U
Aliph	nC11	0.0000			ug/L	U
Aliph	nC12	12.2580			ug/L	U
Aliph	nC13	14.5950			ug/L	U
Aliph	nC14	16.8180			ug/L	U
Aliph	nC15	18.9260			ug/L	U
Aliph	nC16	20.9240			ug/L	U
Aliph	nC17	22.8190			ug/L	U
Aliph	nC18	24.6230			ug/L	U
Aliph	nC19	26.3410			ug/L	U
Aliph	nC20	27.9810			ug/L	U
Aliph	nC21	29.5510			ug/L	U
Aliph	nC22	31.0540			ug/L	U
Aliph	nC23	32.4960			ug/L	U
Aliph	nC24	33.8800			ug/L	U
Aliph	nC25	35.2120	168835		ug/L	Z
Aliph	nC26	36.4960	1357482		ug/L	Z
Aliph	nC27	37.7300	4827103		ug/L	Z
Aliph	nC28	38.9260	9446255		ug/L	Z
Aliph	nC29	40.0740	13205279		ug/L	Z
Aliph	nC30	41.1930	13298757		ug/L	Z
Aliph	nC31	42.2750	12672809		ug/L	Z
Aliph	nC32	43.3560	10766612		ug/L	Z
Aliph	nC33	44.5840	8417085		ug/L	Z
Aliph	nC34	46.0130	6075540		ug/L	Z
Aliph	nC35	47.7140	4388775		ug/L	Z
Aliph	nC36	49.7870	3314220		ug/L	Z
Aliph	nC37	52.2630	2573986		ug/L	Z
Aliph	nC38	55.2360	2196249		ug/L	Z
Aliph	nC39	58.9110	2164117		ug/L	Z
Aliph	Norpristane	21.8010			ug/L	U
Aliph	Phytane	24.7190			ug/L	U
Aliph	Pristane	22.8660			ug/L	U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007771**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 2:44:55 PM

Type: Resinite/Amber

Family: Resin/Amber

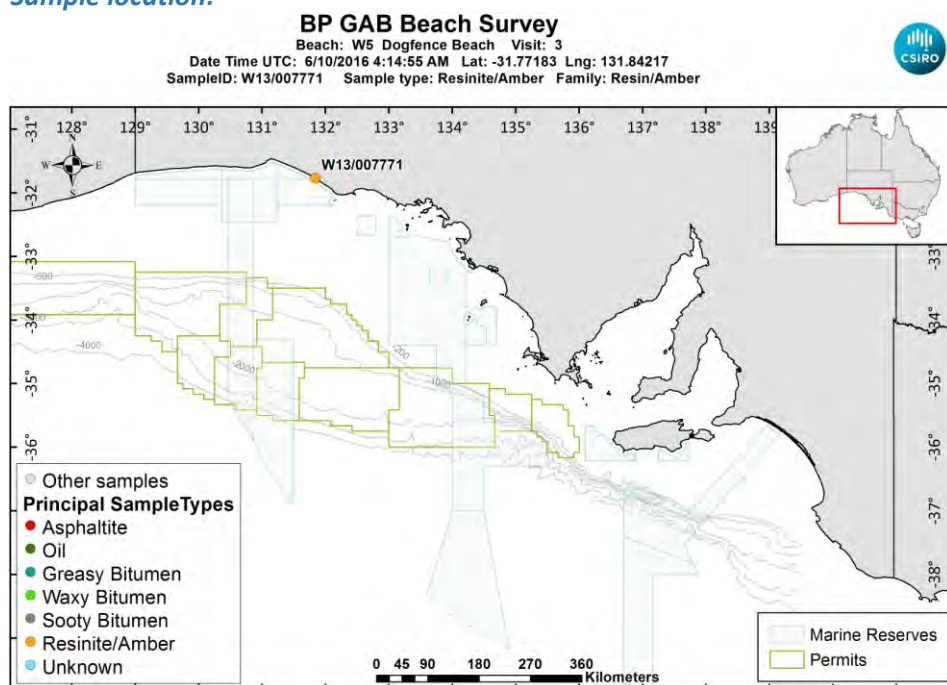
Size (cm): 2.4

Latitude (Y): -31.771833

Weight (gm): 7.57727

Longitude (X): 131.842172

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007771_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007771_146A6419.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007771_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007771 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007772**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 2:48:00 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

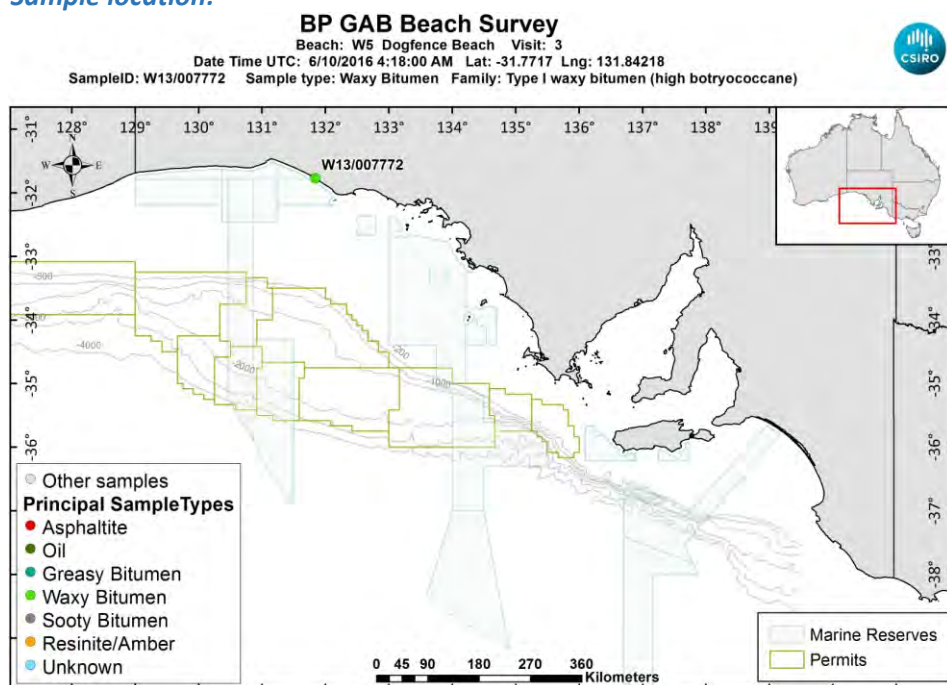
Size (cm): 2.5

Latitude (Y): -31.771698

Weight (gm): 2.02057

Longitude (X): 131.842180

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007772_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007772_146A6422.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007772_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007772_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.17	percent	Y
Inorg	Hydrogen			9.44157117296223	percent	Y
Inorg	Nitrogen			0.26	percent	Y
Inorg	Sulphur			1.57668284397241	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007772 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007772_bulk_WholeOil.jpg](#)

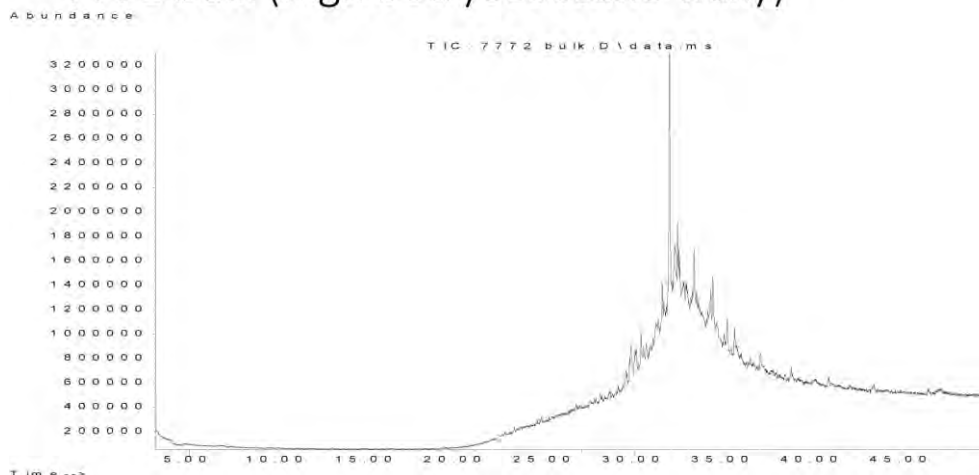
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7772 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	17546005			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080	1430610			Z
Aliph	nC29	32.3700	2240901			Z
Aliph	nC30	33.2910	2425572			Z
Aliph	nC31	34.3470	2734720			Z
Aliph	nC32	35.5720	1683927			Z
Aliph	nC33	37.0130	1437220			Z
Aliph	nC34	38.7280	932535			Z
Aliph	nC35	40.8080	822314			Z
Aliph	nC36	43.3510	570308			Z
Aliph	nC37	46.4710	510526			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007773**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 2:49:00 PM

Type: Resinite/Amber

Family: Resin/Amber

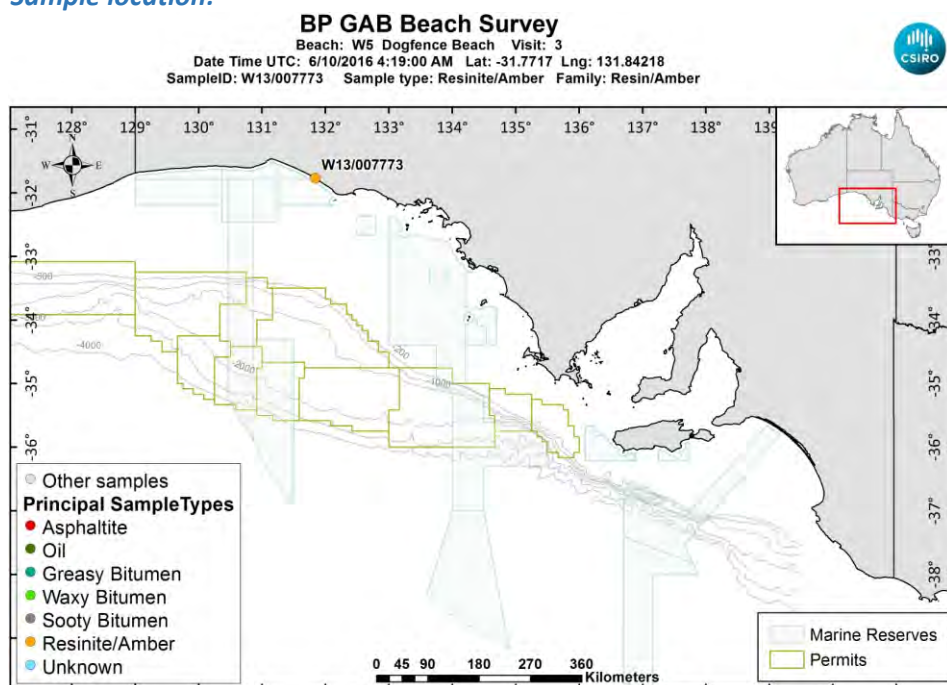
Size (cm): 2.2

Latitude (Y): -31.771698

Weight (gm): 2.88497

Longitude (X): 131.842182

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007773_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007773_146A6424.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007773_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007773 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007774**

Beach W5: Dogfence Beach Visit: 3

Comments:

Melting

Location: Shore Upper

Local Date Time: 6/10/2016 2:58:36 PM

Type: Greasy Bitumen

Family: Unknown

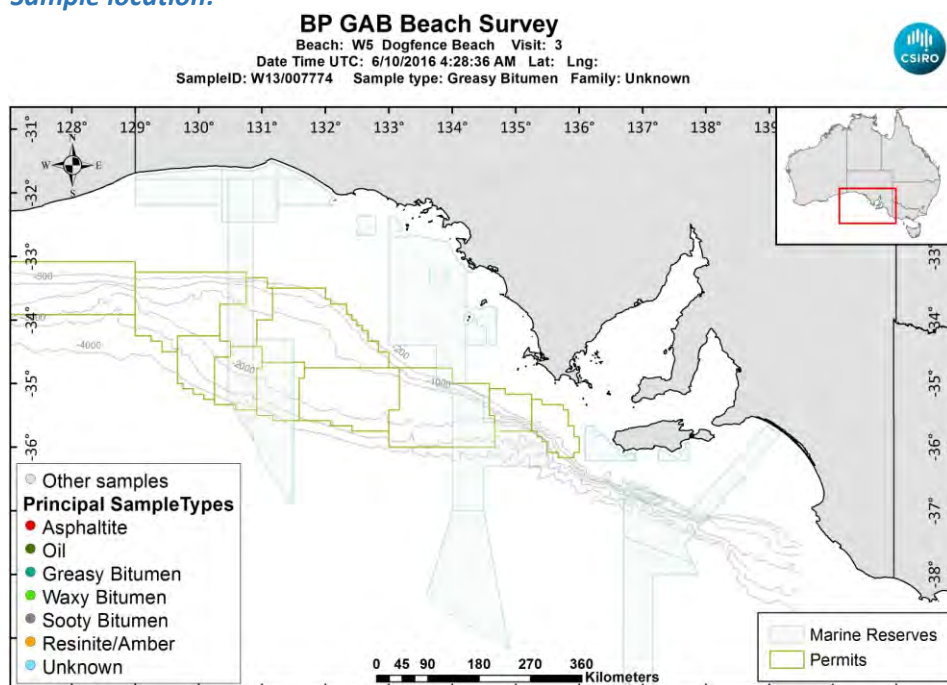
Size (cm): 2.6

Latitude (Y):

Weight (gm): 1.51014

Longitude (X):

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007774_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007774_146A6426.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007774_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: **W13/007774_SPE_ELEM-AN/01**

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			88.46	percent	Y
Inorg	Hydrogen			9.41452127236581	percent	Y
Inorg	Nitrogen			0.34	percent	Y
Inorg	Sulphur			1.64165710184186	percent	Y

Results for: GCMS with Full Scan

Unique ID: **W13/007774 DISS GCMS-Scan/01**

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007774_bulk_WholeOil.jpg](#)

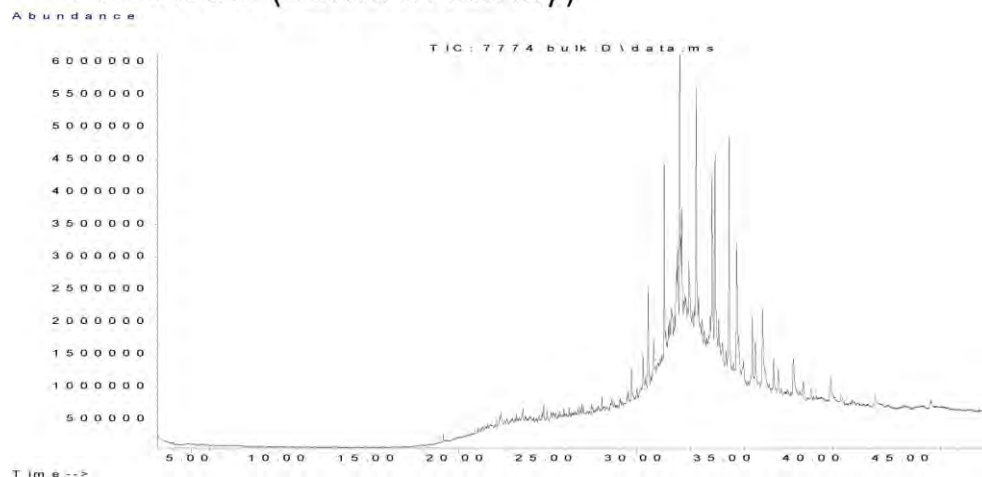
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7774 bulk (confirm family)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680	2116938			Z
Aliph	nC27	30.6080	8677339			Z
Aliph	nC28	31.5080	17511169			Z
Aliph	nC29	32.3700	23308308			Z
Aliph	nC30	33.2910	22767280			Z
Aliph	nC31	34.3470	20377602			Z
Aliph	nC32	35.5720	14428438			Z
Aliph	nC33	37.0130	9828595			Z
Aliph	nC34	38.7280	6730154			Z
Aliph	nC35	40.8080	3777339			Z
Aliph	nC36	43.3510	2591496			Z
Aliph	nC37	46.4710	1812952			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007775**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:02:32 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

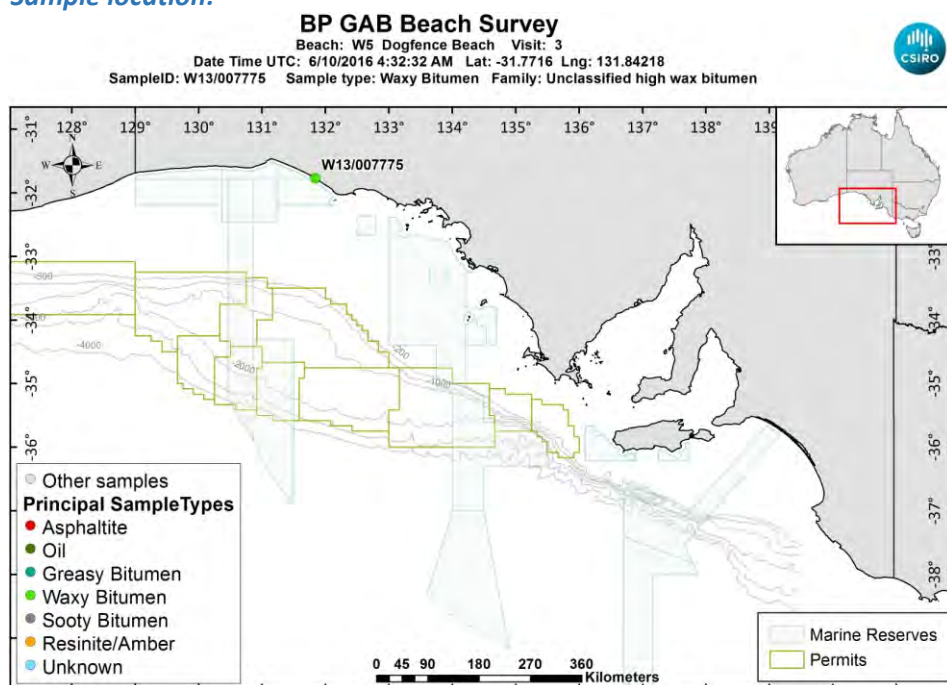
Size (cm): 2

Latitude (Y): -31.771602

Weight (gm): 2.10176

Longitude (X): 131.842180

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007775_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007775_146A6428.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007775_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007775_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			81.92	percent	Y
Inorg	Hydrogen			10.5157498210736	percent	Y
Inorg	Nitrogen			0.26	percent	Y
Inorg	Sulphur			3.44523647739042	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007775 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007775_bulk_WholeOil.jpg](#)

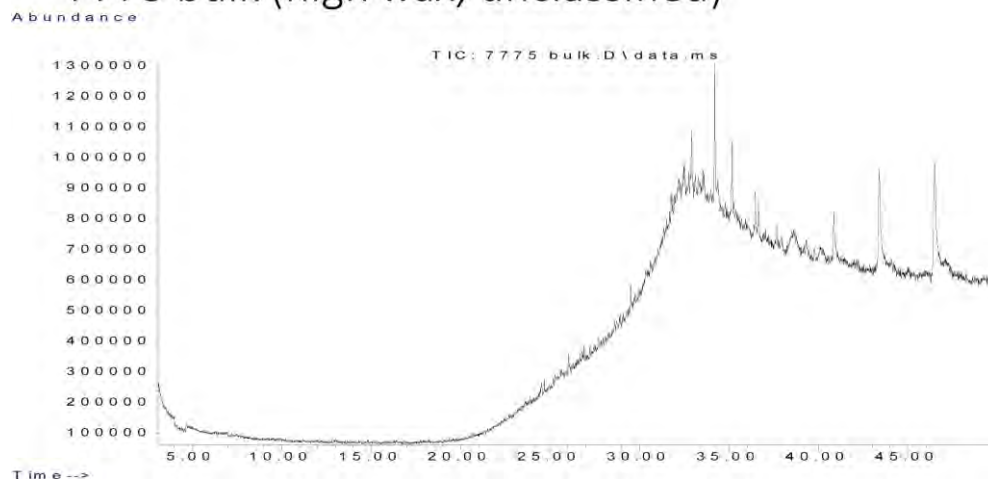
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7775 bulk (high wax, unclassified)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080	1509338			Z
Aliph	nC36	43.3510	3792312			Z
Aliph	nC37	46.4710	5012437			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007776**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:05:01 PM

Type: Greasy Bitumen

Family: Unknown

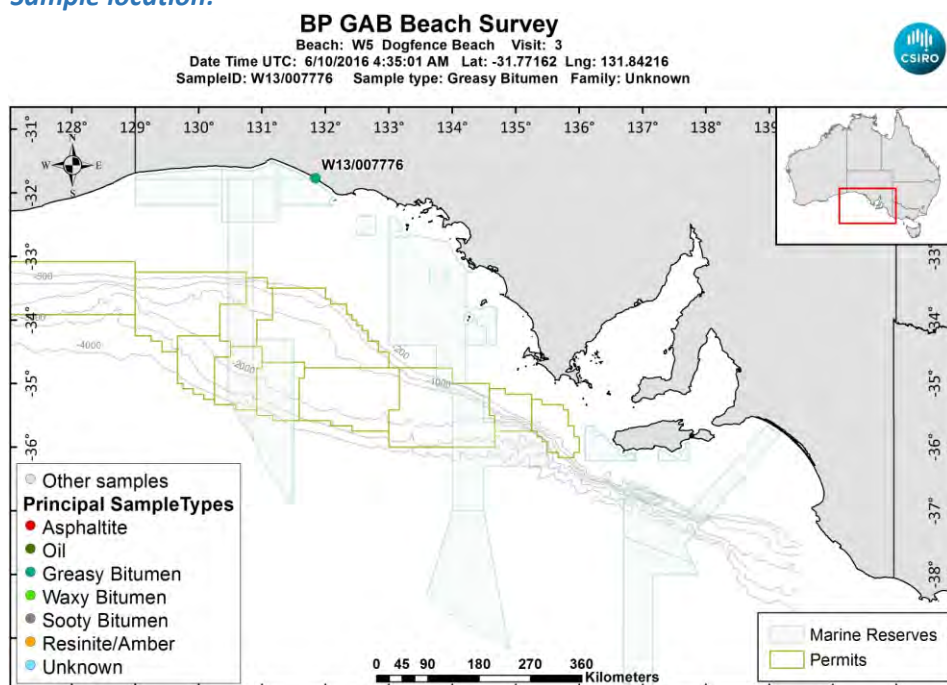
Size (cm): 3.7

Latitude (Y): -31.771620

Weight (gm): 2.51674

Longitude (X): 131.842158

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007776_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007776_146A6430.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007776_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007776_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			88.34	percent	Y
Inorg	Hydrogen			9.50402982107356	percent	Y
Inorg	Nitrogen			0.82	percent	Y
Inorg	Sulphur			1.96816533873033	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007776 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007776_bulk_WholeOil.jpg](#)

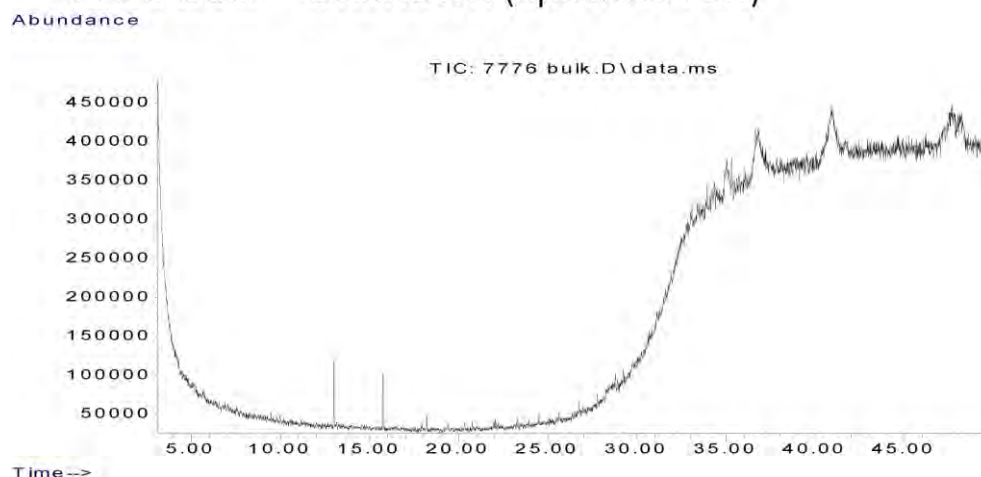
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk (splitless)

Results for: GCMS with Full Scan

7776 bulk – Unknown (splitless run)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007777**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:06:36 PM

Type: Resinite/Amber

Family: Resin/Amber

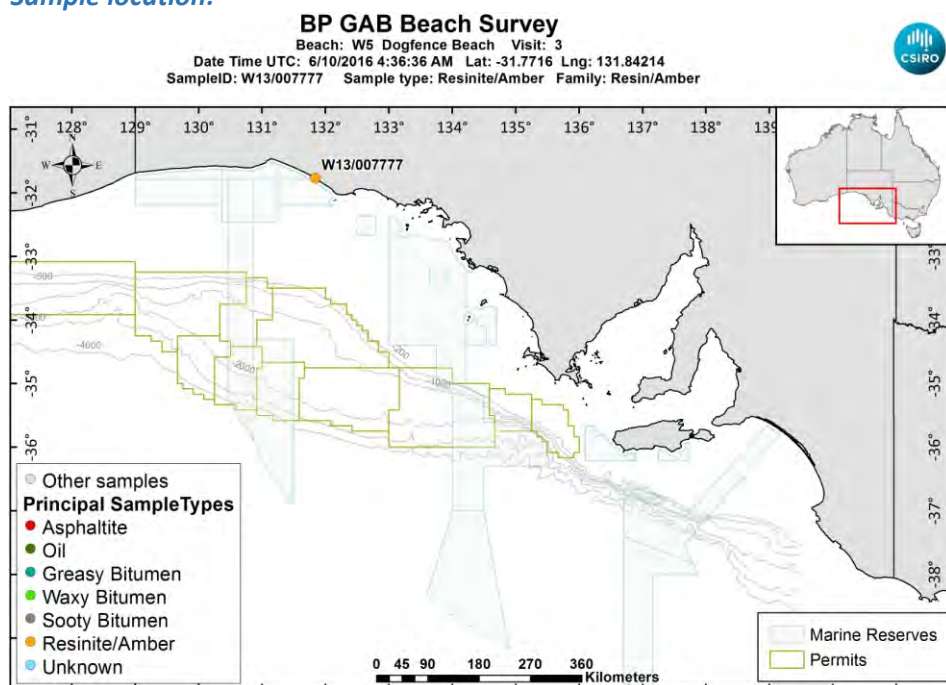
Size (cm): 4.7

Latitude (Y): -31.771598

Weight (gm): 23.98583

Longitude (X): 131.842143

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007777_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007777_146A6432.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007777_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007777_DISS_GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007778**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:08:51 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

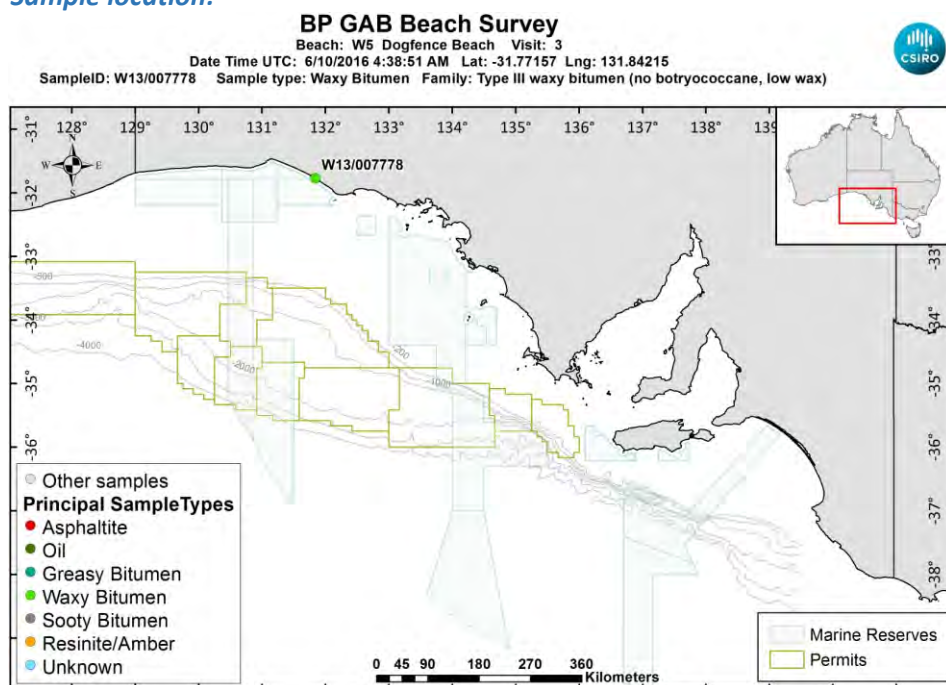
Size (cm): 5.4

Latitude (Y): -31.771568

Weight (gm): 24.60861

Longitude (X): 131.842148

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007778_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007778_146A6434.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007778_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007778_DISS_GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			38.3065968945698	ratio	Y
BiomRatio	% C27 abb 20(R+S)			39.9848415978033	ratio	Y
BiomRatio	% C28 aaa 20R			12.9810414343313	ratio	Y
BiomRatio	% C28 abb 20(R+S)			19.7890662776286	ratio	Y
BiomRatio	% C29 aaa 20R			48.7123616710989	ratio	Y
BiomRatio	% C29 abb 20(R+S)			40.2260921245681	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.139793266983613	ratio	Y
BiomRatio	25-Nor/C30H			4.70815599806085E-02	ratio	Y
BiomRatio	C19t/C23t			3.71195879391943E-02	ratio	Y
BiomRatio	C22t/C21t			0.206888212351977	ratio	Y
BiomRatio	C22t/C24t			0.191725087901223	ratio	Y
BiomRatio	C23t/C30H			0.130509535662188	ratio	Y
BiomRatio	C24t/C23t			0.776031573490309	ratio	Y
BiomRatio	C24Tet/C23t			0.191062427880997	ratio	Y
BiomRatio	C24Tet/C26t			0.183248186117293	ratio	Y
BiomRatio	C24Tet/C30H			2.49354687452393E-02	ratio	Y
BiomRatio	C26t/C25t			2.18584414564506	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.604206888148671	ratio	Y
BiomRatio	C27 Dia/Ster			0.76412216821982	ratio	Y
BiomRatio	C28BNH/C30H			3.04243902869145E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.00603354964342	ratio	Y
BiomRatio	C29H/C30H			0.821941316302279	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.163685081979736	ratio	Y
BiomRatio	C30DiaH/C30H			7.32230147958095E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			3.73234789574373E-02	ratio	Y
BiomRatio	C35HS/C34HS			0.459891141639873	ratio	Y
BiomRatio	Gam/C30H			6.68959093640445E-02	ratio	Y
BiomRatio	Gam/C31HR			0.446475039126093	ratio	Y
BiomRatio	Ole/C30H			6.04311291072953E-02	ratio	Y
BiomRatio	Sterane/hopane			4.86257609422501E-02	ratio	Y
BiomRatio	Steranes/Terpanes			3.98389582597105E-02	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.220558043341857	ratio	Y

Results for: Elemental Analyser

Unique ID: W13/007778_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

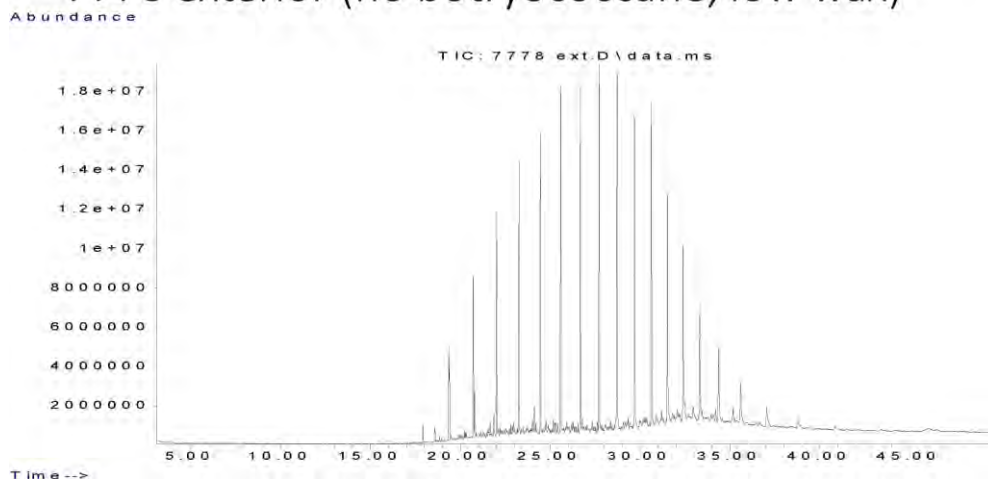
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			82.53	percent	Y
Inorg	Hydrogen			10.3604731610338	percent	Y
Inorg	Nitrogen			0.09	percent	Y
Inorg	Sulphur			1.975500489078	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007778_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007778_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7778 exterior (no botryococcane, low wax)



Data Sheet:

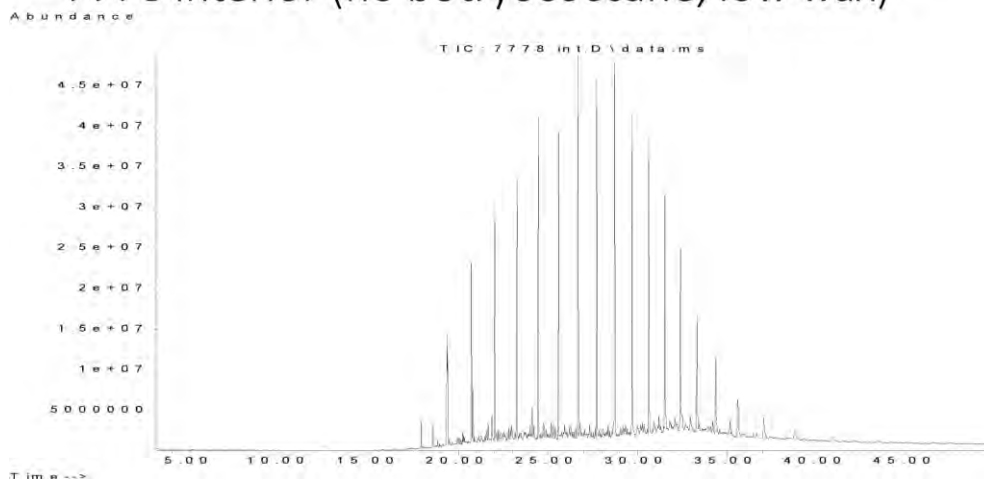
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030	271546			Z
Aliph	nC16	17.9160	4608989			Z
Aliph	nC17	19.3500	21680038			Z
Aliph	nC18	20.7170	37470478			Z
Aliph	nC19	22.0170	52217915			Z
Aliph	nC20	23.2570	58417660			Z
Aliph	nC21	24.4410	69994807			Z
Aliph	nC22	25.5760	76612984			Z
Aliph	nC23	26.6620	83999904			Z
Aliph	nC24	27.7060	84792025			Z
Aliph	nC25	28.7100	92256263			Z
Aliph	nC26	29.6680	82912490			Z
Aliph	nC27	30.6080	80305866			Z
Aliph	nC28	31.5080	62576690			Z
Aliph	nC29	32.3700	49124165			Z
Aliph	nC30	33.2910	33462901			Z
Aliph	nC31	34.3470	27649872			Z
Aliph	nC32	35.5720	17715221			Z
Aliph	nC33	37.0130	11075376			Z
Aliph	nC34	38.7280	5378261			Z
Aliph	nC35	40.8080	2500686			Z
Aliph	nC36	43.3510	1537128			Z
Aliph	nC37	46.4710	672960			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830	5450193			Z
Aliph	Phytane	20.7870	13412012			Z
Aliph	Pristane	19.3870	19377890			Z

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007778 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007778_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7778 interior (no botryococcane, low wax)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030	1033978			Z
Aliph	nC16	17.9160	15819678			Z
Aliph	nC17	19.3500	90908952			Z
Aliph	nC18	20.7170	102828495			Z
Aliph	nC19	22.0170	133841920			Z
Aliph	nC20	23.2570	150273780			Z
Aliph	nC21	24.4410	158789103			Z
Aliph	nC22	25.5760	169394506			Z
Aliph	nC23	26.6620	170680396			Z
Aliph	nC24	27.7060	172574745			Z
Aliph	nC25	28.7100	176034786			Z
Aliph	nC26	29.6680	177466023			Z
Aliph	nC27	30.6080	172575008			Z
Aliph	nC28	31.5080	136383930			Z
Aliph	nC29	32.3700	110534422			Z
Aliph	nC30	33.2910	80555423			Z
Aliph	nC31	34.3470	62702524			Z
Aliph	nC32	35.5720	37343260			Z
Aliph	nC33	37.0130	25575357			Z
Aliph	nC34	38.7280	15250161			Z
Aliph	nC35	40.8080	7346127			Z
Aliph	nC36	43.3510	4428874			Z
Aliph	nC37	46.4710	2491820			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830	19586988			Z
Aliph	Phytane	20.7870	33812360			Z
Aliph	Pristane	19.3870	56350706			Z

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007779**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:11:21 PM

Type: Asphaltite

Family: Unknown

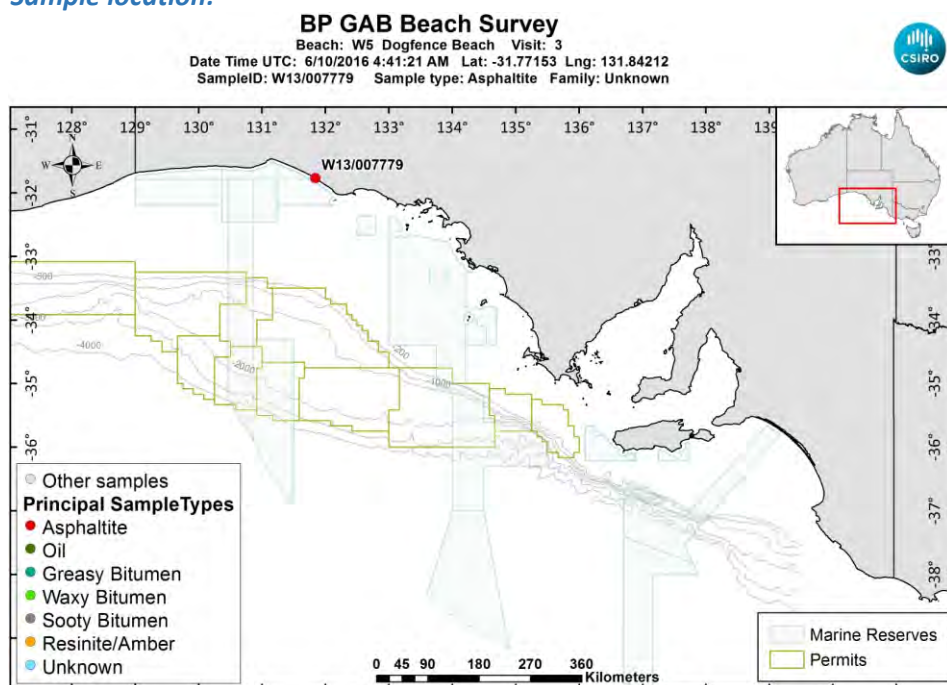
Size (cm): 5.8

Latitude (Y): -31.771533

Weight (gm): 34.31855

Longitude (X): 131.842123

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007779_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007779_146A6436.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007779_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007779_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			84.39	percent	Y
Inorg	Hydrogen			9.38794926441352	percent	Y
Inorg	Nitrogen			0.85	percent	Y
Inorg	Sulphur			1.95167117053532	percent	Y

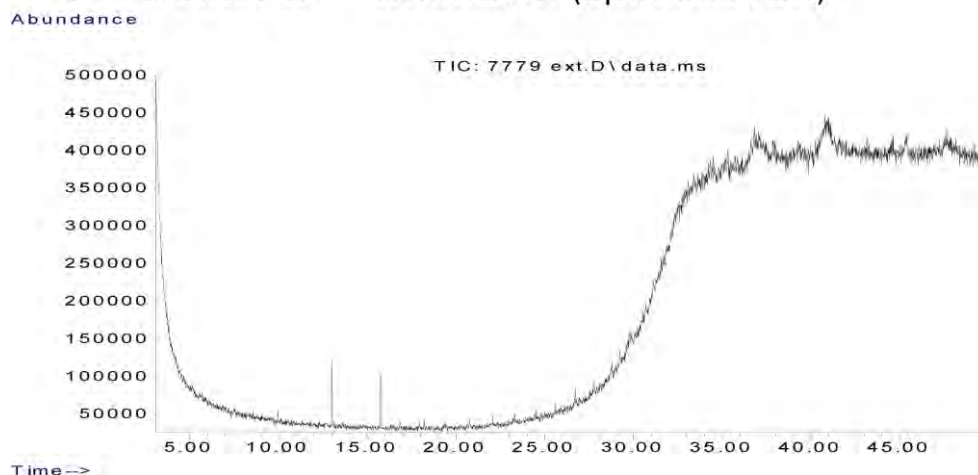
Results for: GCMS with Full Scan

Unique ID: W13/007779_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007779_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior (splitless)

Results for: GCMS with Full Scan

7779 exterior – Unknown (splitless run)



Data Sheet:

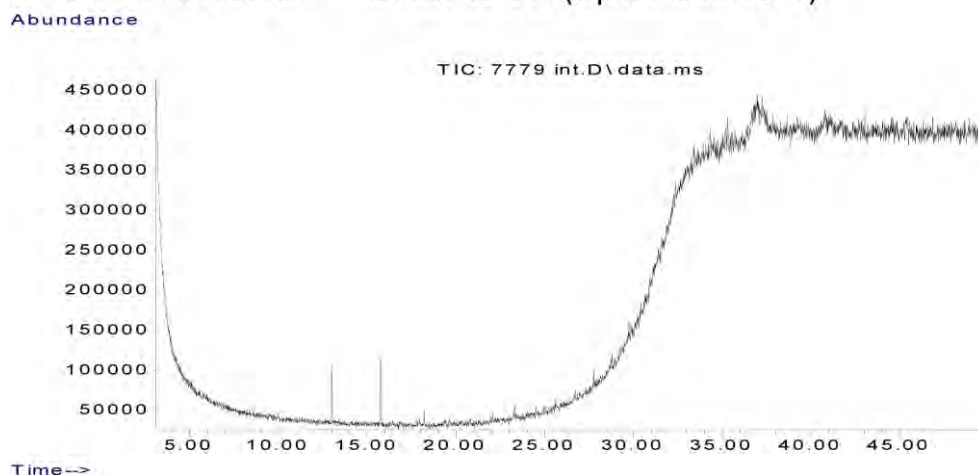
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007779 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007779_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior (splitless)

Results for: GCMS with Full Scan

7779 interior – Unknown (splitless run)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007780**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:14:43 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

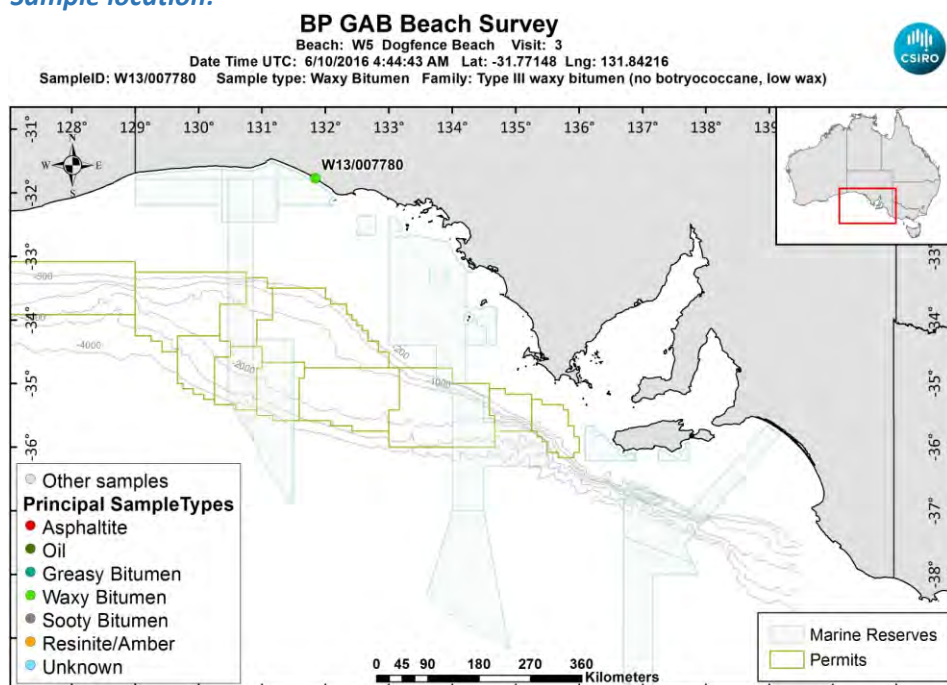
Size (cm): 2.7

Latitude (Y): -31.771475

Weight (gm): 2.87996

Longitude (X): 131.842163

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007780_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007780_146A6438.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007780_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: **W13/007780_SPE_ELEM-AN/01**

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			87.1	percent	Y
Inorg	Hydrogen			6.34057145129225	percent	Y
Inorg	Nitrogen			0.05	percent	Y
Inorg	Sulphur			0.914205218455618	percent	Y

Results for: GCMS with Full Scan

Unique ID: **W13/007780 DISS GCMS-Scan/03**

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007780_bulk_WholeOil.jpg](#)

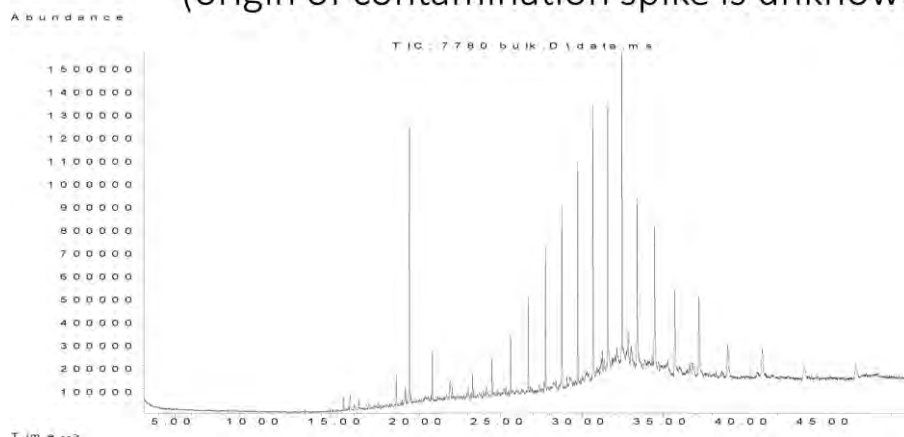
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7780 bulk – No botryococcane, low wax
(origin of contamination spike is unknown)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170	133658			Z
Aliph	nC19	22.0170	225677			Z
Aliph	nC20	23.2570	412284			Z
Aliph	nC21	24.4410	657298			Z
Aliph	nC22	25.5760	1099363			Z
Aliph	nC23	26.6620	1603662			Z
Aliph	nC24	27.7060	2354165			Z
Aliph	nC25	28.7100	3280304			Z
Aliph	nC26	29.6680	3633248			Z
Aliph	nC27	30.6080	4483385			Z
Aliph	nC28	31.5080	4498790			Z
Aliph	nC29	32.3700	4450455			Z
Aliph	nC30	33.2910	3026358			Z
Aliph	nC31	34.3470	3929314			Z
Aliph	nC32	35.5720	2707448			Z
Aliph	nC33	37.0130	3024555			Z
Aliph	nC34	38.7280	1599818			Z
Aliph	nC35	40.8080	1343179			Z
Aliph	nC36	43.3510	955390			Z
Aliph	nC37	46.4710	1044265			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830	740017			Z
Aliph	Phytane	20.7870	1074936			Z
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007781**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:16:03 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

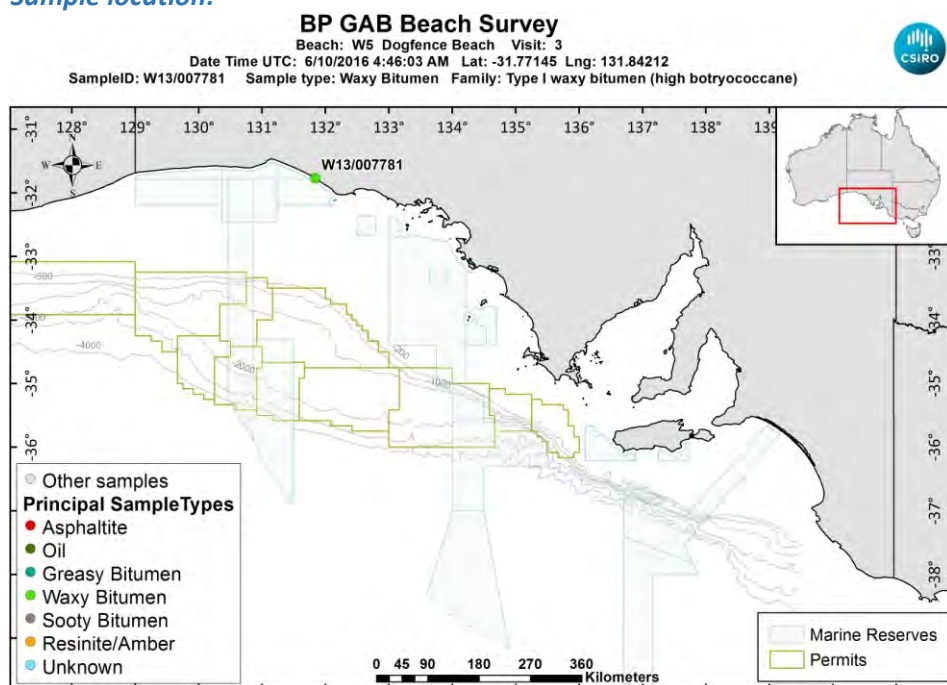
Size (cm): 3.2

Latitude (Y): -31.771450

Weight (gm): 5.72187

Longitude (X): 131.842117

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007781_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007781_146A6440.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007781_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007781_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

						(default units ppb)		
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:		
Inorg	Carbon			86.1739988662888	percent	Y		
Inorg	Hydrogen			7.40543093439364	percent	Y		
Inorg	Nitrogen			0.237889974293059	percent	Y		
Inorg	Sulphur			2.39262143295378	percent	Y		

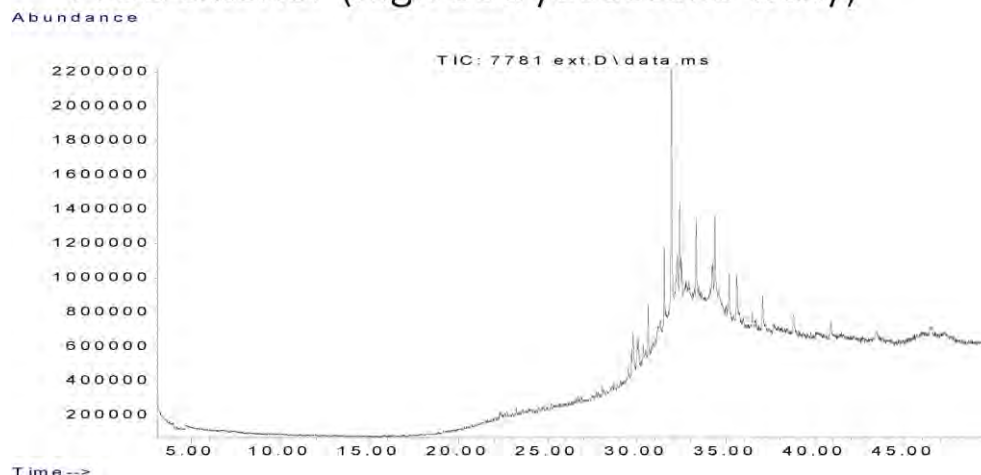
Results for: GCMS with Full Scan

Unique ID: W13/007781_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007781_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7781 exterior (high botryococcane waxy)



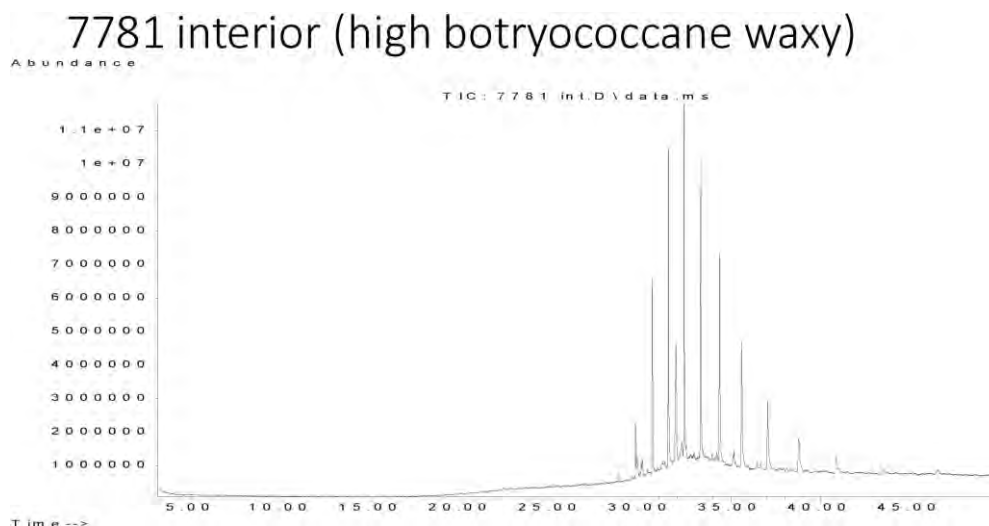
Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	11558713			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680	485623			Z
Aliph	nC27	30.6080	1459770			Z
Aliph	nC28	31.5080	2658466			Z
Aliph	nC29	32.3700	2873057			Z
Aliph	nC30	33.2910	2825339			Z
Aliph	nC31	34.3470	3335670			Z
Aliph	nC32	35.5720	2172895			Z
Aliph	nC33	37.0130	1524291			Z
Aliph	nC34	38.7280	1339755			Z
Aliph	nC35	40.8080	977080			Z
Aliph	nC36	43.3510	989581			Z
Aliph	nC37	46.4710	590830			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007781 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007781_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	28444557			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	1164521			Z
Aliph	nC26	29.6680	7398153			Z
Aliph	nC27	30.6080	30065228			Z
Aliph	nC28	31.5080	48944780			Z
Aliph	nC29	32.3700	58864431			Z
Aliph	nC30	33.2910	51378957			Z
Aliph	nC31	34.3470	43957648			Z
Aliph	nC32	35.5720	29436388			Z
Aliph	nC33	37.0130	21323638			Z
Aliph	nC34	38.7280	11700580			Z
Aliph	nC35	40.8080	6338408			Z
Aliph	nC36	43.3510	4287666			Z
Aliph	nC37	46.4710	2558133			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007782**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:17:41 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

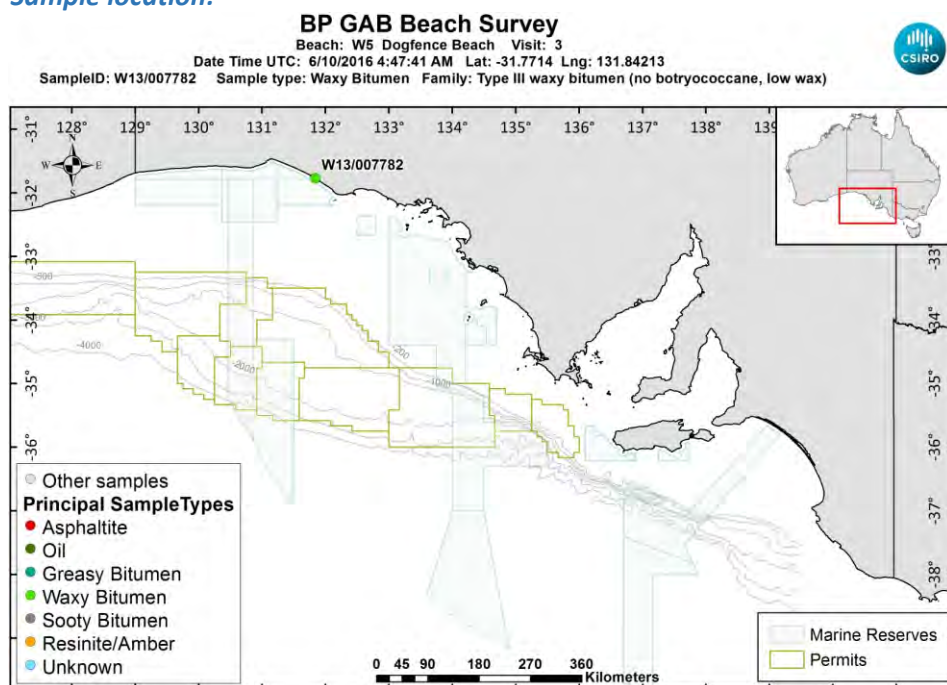
Size (cm): 4.6

Latitude (Y): -31.771405

Weight (gm): 8.64678

Longitude (X): 131.842130

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007782_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007782_146A6442.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\W13_007782_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007782_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			85.3704936312104	percent	Y
Inorg	Hydrogen			6.39259681908549	percent	Y
Inorg	Nitrogen			0.13599794344473	percent	Y
Inorg	Sulphur			1.89153864759903	percent	Y

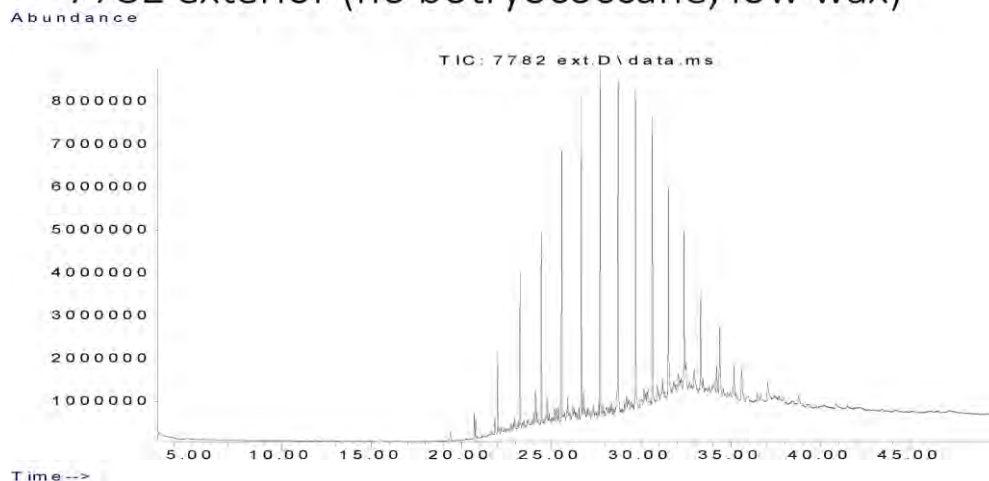
Results for: GCMS with Full Scan

Unique ID: W13/007782_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007782_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7782 exterior (no botryococcane, low wax)



Data Sheet:

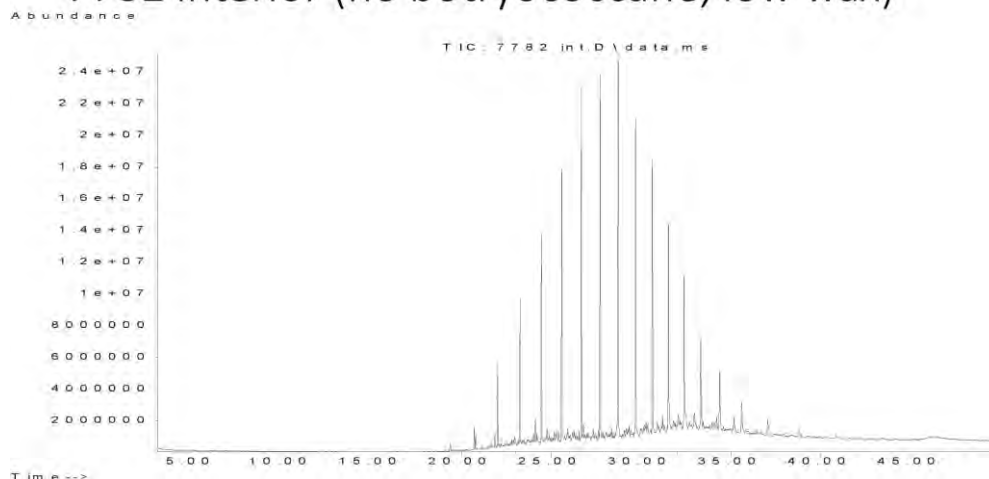
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500	129751			Z
Aliph	nC18	20.7170	2679892			Z
Aliph	nC19	22.0170	8765979			Z
Aliph	nC20	23.2570	15235079			Z
Aliph	nC21	24.4410	21331188			Z
Aliph	nC22	25.5760	27246164			Z
Aliph	nC23	26.6620	33716972			Z
Aliph	nC24	27.7060	36700293			Z
Aliph	nC25	28.7100	38641900			Z
Aliph	nC26	29.6680	35469896			Z
Aliph	nC27	30.6080	33527196			Z
Aliph	nC28	31.5080	26723510			Z
Aliph	nC29	32.3700	22054278			Z
Aliph	nC30	33.2910	14097802			Z
Aliph	nC31	34.3470	11245001			Z
Aliph	nC32	35.5720	6439504			Z
Aliph	nC33	37.0130	4183660			Z
Aliph	nC34	38.7280	2379511			Z
Aliph	nC35	40.8080	1445730			Z
Aliph	nC36	43.3510	912464			Z
Aliph	nC37	46.4710	695649			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870	2708789			Z
Aliph	Pristane	19.3870	1259802			Z

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007782 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007782_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7782 interior (no botryococcane, low wax)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500	1243375			Z
Aliph	nC18	20.7170	6667095			Z
Aliph	nC19	22.0170	22911715			Z
Aliph	nC20	23.2570	40305809			Z
Aliph	nC21	24.4410	59333853			Z
Aliph	nC22	25.5760	77340655			Z
Aliph	nC23	26.6620	95509633			Z
Aliph	nC24	27.7060	102126426			Z
Aliph	nC25	28.7100	97940070			Z
Aliph	nC26	29.6680	93186096			Z
Aliph	nC27	30.6080	88088763			Z
Aliph	nC28	31.5080	64530801			Z
Aliph	nC29	32.3700	46799086			Z
Aliph	nC30	33.2910	32991532			Z
Aliph	nC31	34.3470	26061425			Z
Aliph	nC32	35.5720	15995115			Z
Aliph	nC33	37.0130	9607669			Z
Aliph	nC34	38.7280	4944623			Z
Aliph	nC35	40.8080	2932210			Z
Aliph	nC36	43.3510	2006407			Z
Aliph	nC37	46.4710	1540406			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830	322929			Z
Aliph	Phytane	20.7870	5349145			Z
Aliph	Pristane	19.3870	2637247			Z

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007783**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:19:29 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

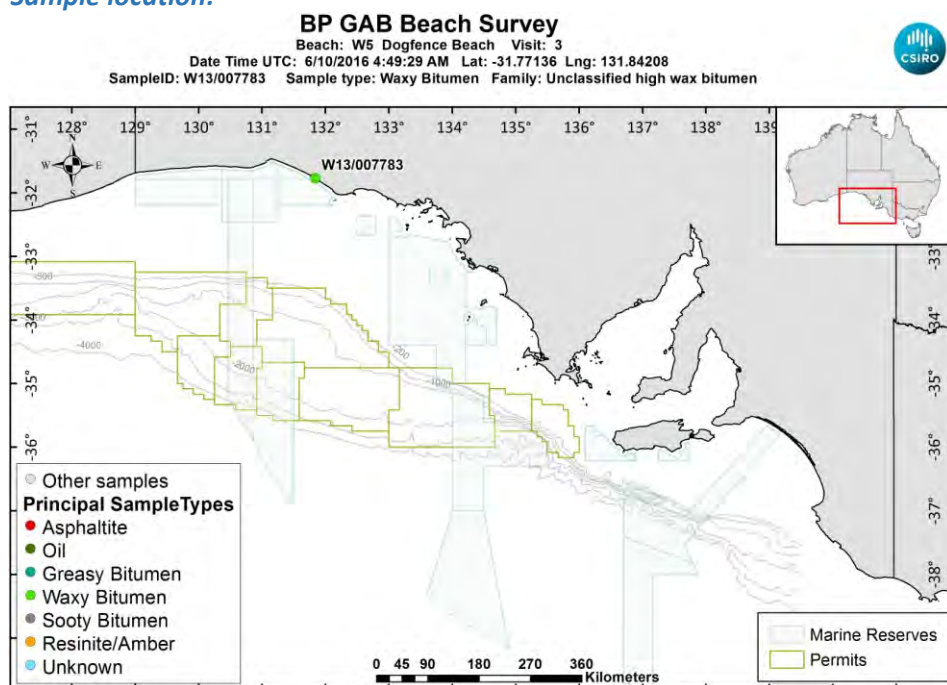
Size (cm): 3.5

Latitude (Y): -31.771365

Weight (gm): 4.90598

Longitude (X): 131.842085

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007783_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007783_146A6444.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007783_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007783_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

(default units ppb)

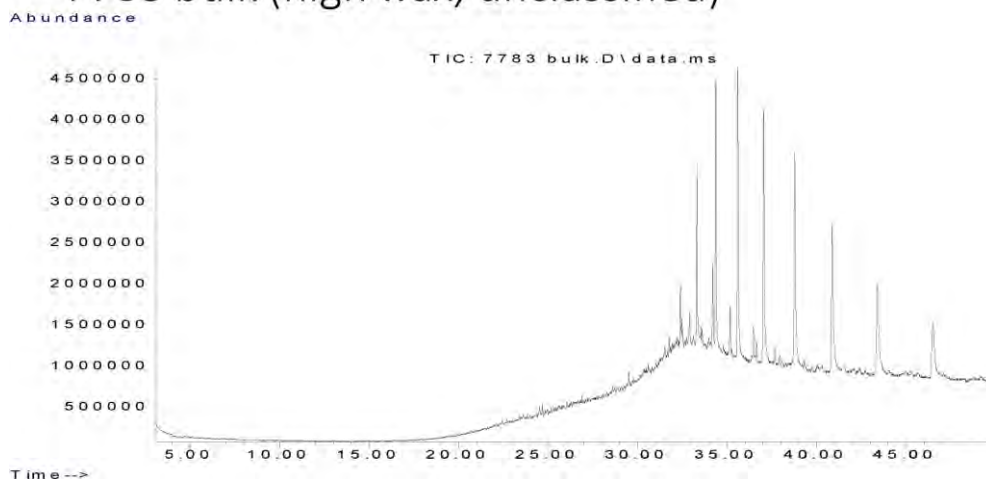
Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			85.8366367122374	percent	Y
Inorg	Hydrogen			10.9430473956262	percent	Y
Inorg	Nitrogen			0.229449871465296	percent	Y
Inorg	Sulphur			6.37828248316387	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007783 DISS GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007783_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment: Bulk			

Results for: GCMS with Full Scan

7783 bulk (high wax, unclassified)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080	688712			Z
Aliph	nC29	32.3700	4365951			Z
Aliph	nC30	33.2910	13110975			Z
Aliph	nC31	34.3470	22083986			Z
Aliph	nC32	35.5720	28236113			Z
Aliph	nC33	37.0130	27129017			Z
Aliph	nC34	38.7280	26041461			Z
Aliph	nC35	40.8080	17768909			Z
Aliph	nC36	43.3510	11310063			Z
Aliph	nC37	46.4710	9104145			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007784**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:20:57 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

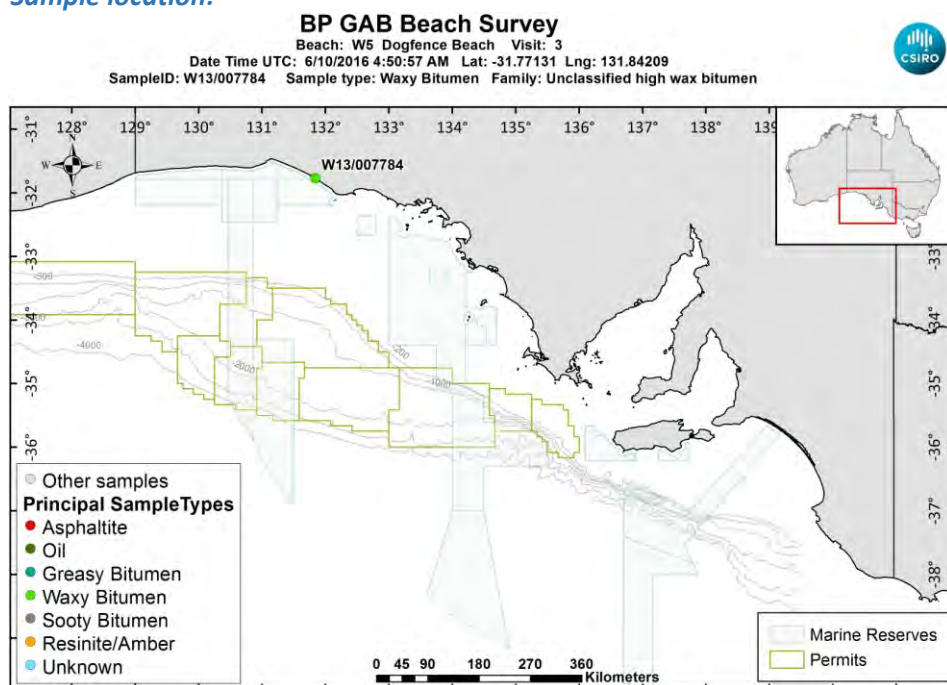
Size (cm): 3.5

Latitude (Y): -31.771313

Weight (gm): 11.92952

Longitude (X): 131.842087

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007784_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007784_146A6446.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007784_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007784_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			88.7460963321107	percent	Y
Inorg	Hydrogen			7.24478151093439	percent	Y
Inorg	Nitrogen			0.302428791773779	percent	Y
Inorg	Sulphur			4.38049216097073	percent	Y

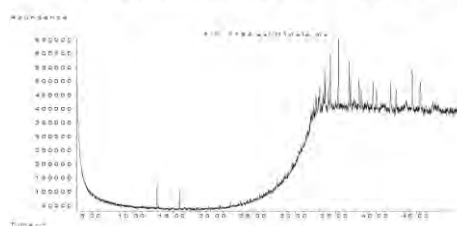
Results for: GCMS with Full Scan

Unique ID: W13/007784_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007784_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior (splitless)

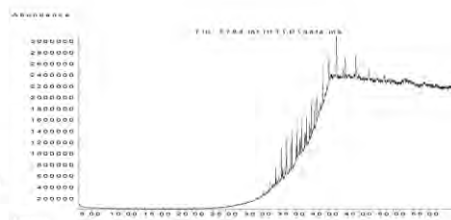
Results for: GCMS with Full Scan

7784 exterior – Unknown (splitless)



Very degraded sample
Mostly biomarkers remain

7784 exterior – Unknown
- HT-GCMS test run



Data Sheet:

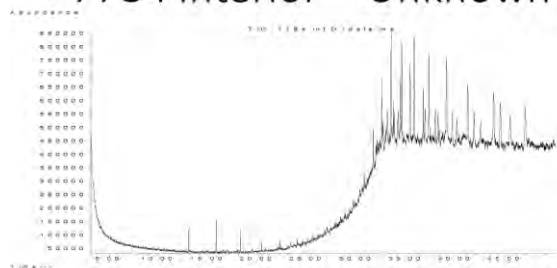
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640	704875			Z
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007784 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007784_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior (splitless)

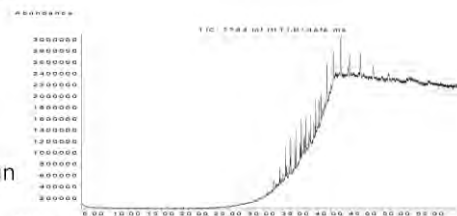
Results for: GCMS with Full Scan

7784 interior – Unknown (splitless)



Very degraded sample
Mostly biomarkers remain

Unknown
- HT-GCMS test run



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850	282481			Z
Aliph	nC28	31.5900	647251			Z
Aliph	nC29	32.4650	1078431			Z
Aliph	nC30	33.4020	1988690			Z
Aliph	nC31	34.4700	2405484			Z
Aliph	nC32	35.7230	2692882			Z
Aliph	nC33	37.1970	2858495			Z
Aliph	nC34	38.9660	3269764			Z
Aliph	nC35	41.0780	2395972			Z
Aliph	nC36	43.6950	2861861			Z
Aliph	nC37	46.8640	2566235			Z
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007785**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:23:07 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

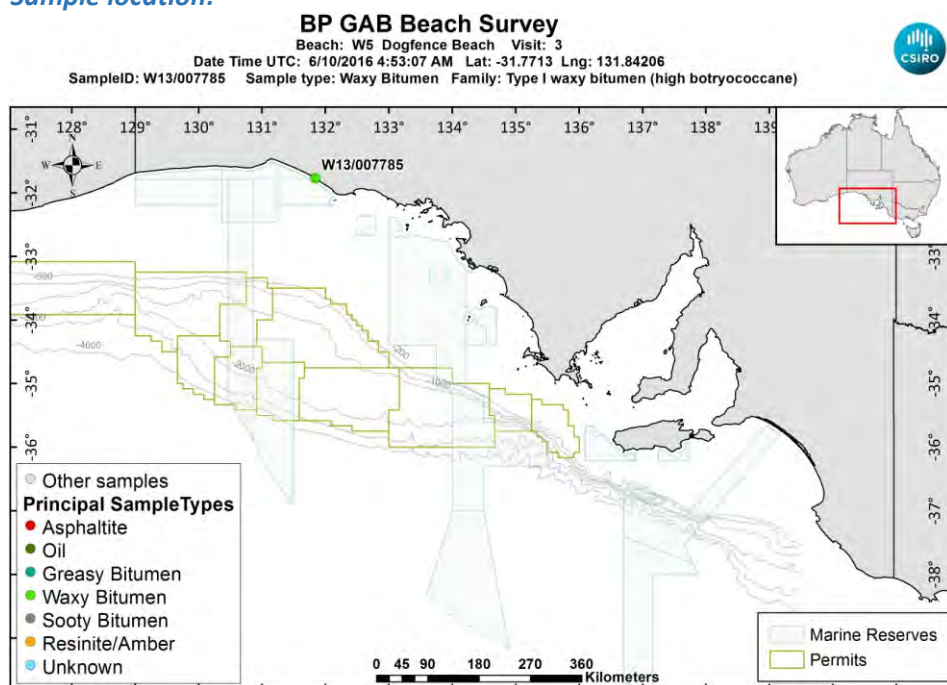
Size (cm): 3.9

Latitude (Y): -31.771298

Weight (gm): 13.60484

Longitude (X): 131.842060

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007785_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007785_146A6448.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007785_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007785_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.6283931643881	percent	Y
Inorg	Hydrogen			8.24419777335984	percent	Y
Inorg	Nitrogen			0.206483290488432	percent	Y
Inorg	Sulphur			3.23967188557071	percent	Y

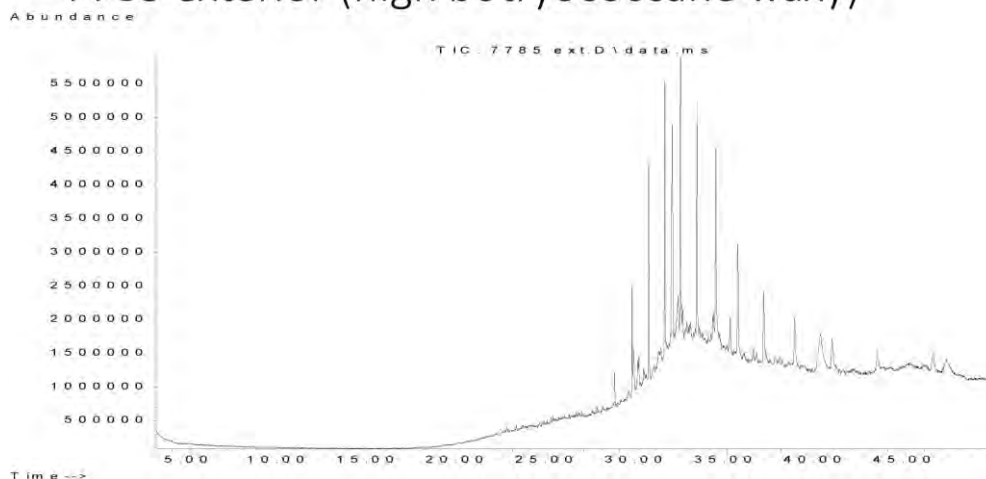
Results for: GCMS with Full Scan

Unique ID: W13/007785_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007785_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7785 exterior (high botryococcane waxy)



Data Sheet:

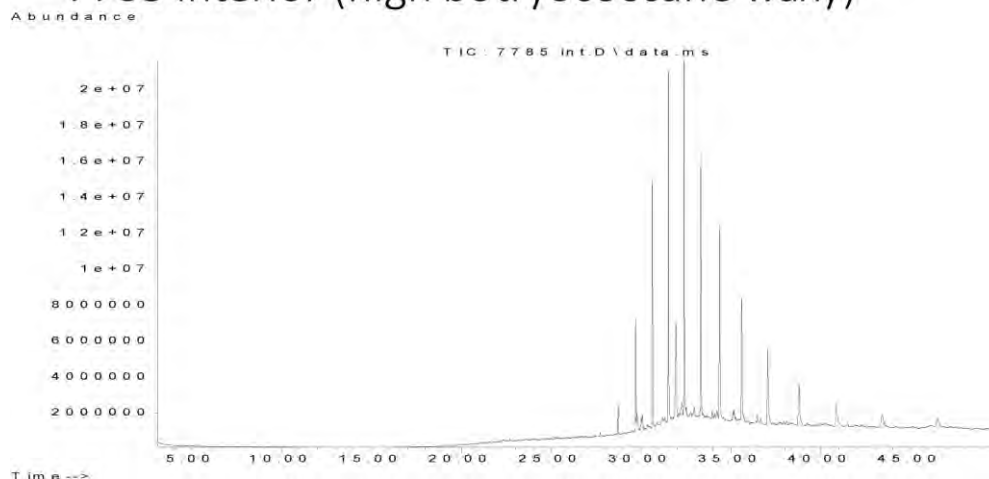
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	27187124			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060	366618			Z
Aliph	nC25	28.7100	2198030			Z
Aliph	nC26	29.6680	6952273			Z
Aliph	nC27	30.6080	16184352			Z
Aliph	nC28	31.5080	19960722			Z
Aliph	nC29	32.3700	21284738			Z
Aliph	nC30	33.2910	18521871			Z
Aliph	nC31	34.3470	19540274			Z
Aliph	nC32	35.5720	13553420			Z
Aliph	nC33	37.0130	10019667			Z
Aliph	nC34	38.7280	6849069			Z
Aliph	nC35	40.8080	4986022			Z
Aliph	nC36	43.3510	4858107			Z
Aliph	nC37	46.4710	4661705			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007785 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007785_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7785 interior (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	41815842			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060	890294			Z
Aliph	nC25	28.7100	7409495			Z
Aliph	nC26	29.6680	29395018			Z
Aliph	nC27	30.6080	69775443			Z
Aliph	nC28	31.5080	87270461			Z
Aliph	nC29	32.3700	93647482			Z
Aliph	nC30	33.2910	78601952			Z
Aliph	nC31	34.3470	68554141			Z
Aliph	nC32	35.5720	52388202			Z
Aliph	nC33	37.0130	38565972			Z
Aliph	nC34	38.7280	25872372			Z
Aliph	nC35	40.8080	17448762			Z
Aliph	nC36	43.3510	11390053			Z
Aliph	nC37	46.4710	8671574			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007786**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:24:45 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

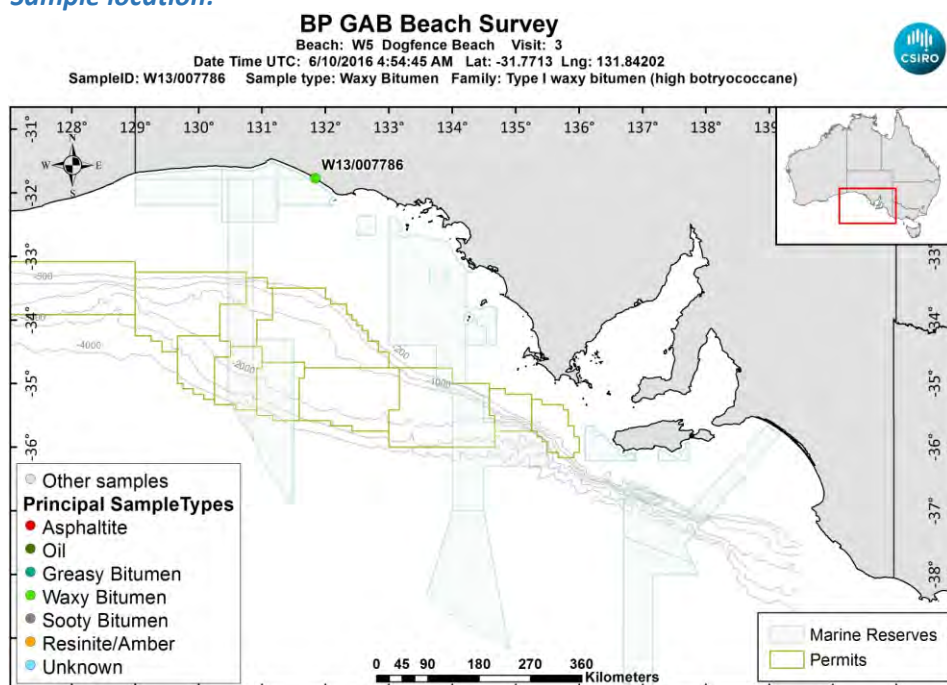
Size (cm): 2.6

Latitude (Y): -31.771297

Weight (gm): 2.58334

Longitude (X): 131.842025

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007786_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007786_146A6450.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007786_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: **W13/007786_SPE_ELEM-AN/01**

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			87.8040997332444	percent	Y
Inorg	Hydrogen			9.42553001988072	percent	Y
Inorg	Nitrogen			0.319180462724936	percent	Y
Inorg	Sulphur			2.33210863181349	percent	Y

Results for: GCMS with Full Scan

Unique ID: **W13/007786 DISS GCMS-Scan/03**

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007786_bulk_WholeOil.jpg](#)

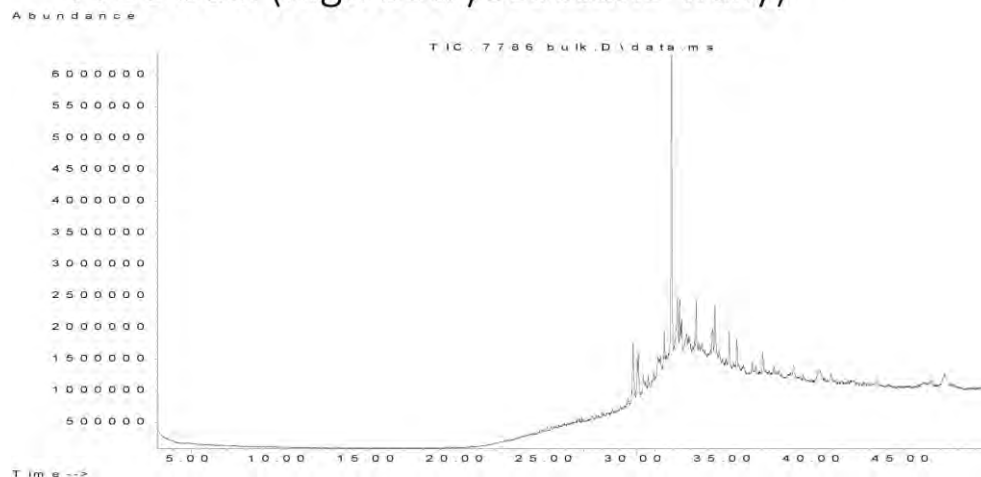
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7786 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	39541126			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080	869222			Z
Aliph	nC28	31.5080	2399411			Z
Aliph	nC29	32.3700	3317656			Z
Aliph	nC30	33.2910	4409363			Z
Aliph	nC31	34.3470	4776583			Z
Aliph	nC32	35.5720	3635183			Z
Aliph	nC33	37.0130	2903533			Z
Aliph	nC34	38.7280	1997340			Z
Aliph	nC35	40.8080	1493717			Z
Aliph	nC36	43.3510	1605141			Z
Aliph	nC37	46.4710	1864407			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007787**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 3:26:42 PM

Type: Resinite/Amber

Family: Resin/Amber

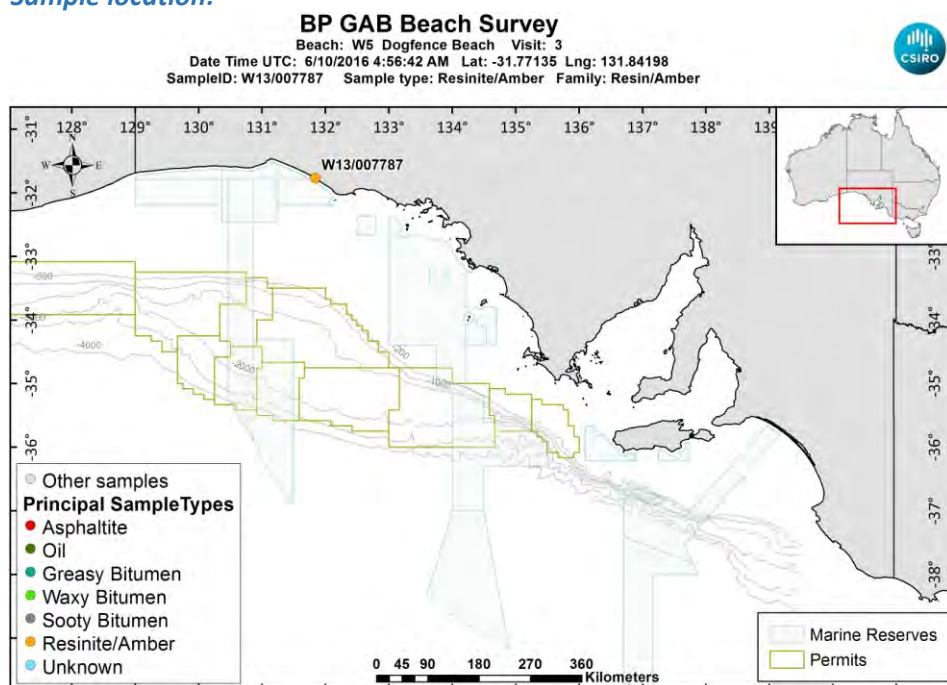
Size (cm): 3.7

Latitude (Y): -31.771347

Weight (gm): 8.19618

Longitude (X): 131.841980

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007787_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007787_146A6452.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007787_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007787_DISS_GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007788**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:28:44 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

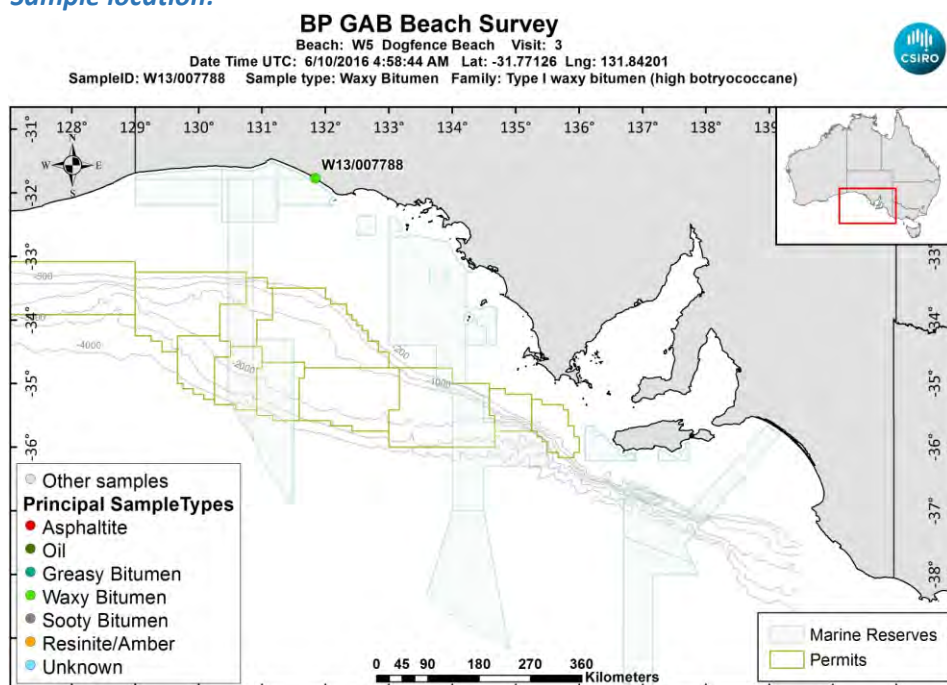
Size (cm): 2.1

Latitude (Y): -31.771260

Weight (gm): 0.91575

Longitude (X): 131.842010

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007788_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007788_146A6454.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007788_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007788_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

(default units ppb)

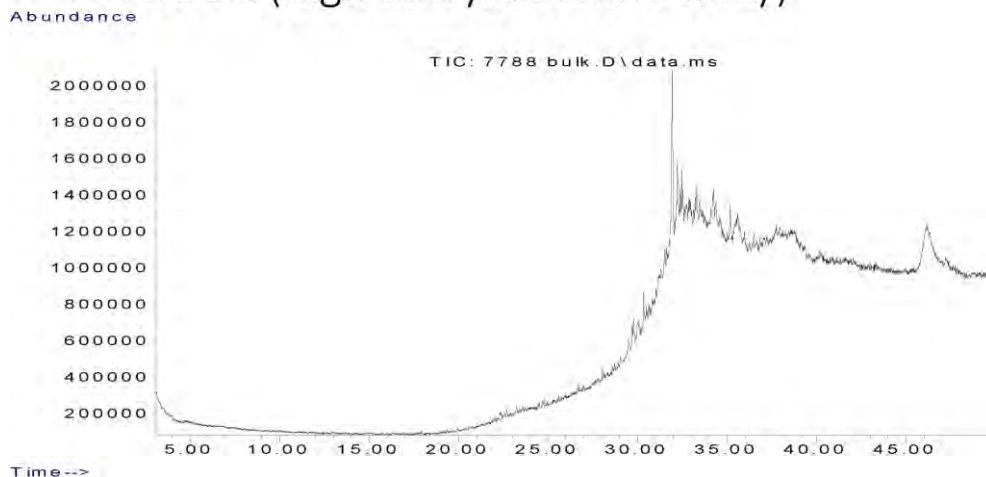
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.6992449149717	percent	Y
Inorg	Hydrogen			11.1418850099404	percent	Y
Inorg	Nitrogen			0.368745501285347	percent	Y
Inorg	Sulphur			2.59649573627469	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007788 DISS GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007788_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment: Bulk			

Results for: GCMS with Full Scan

7788 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	7325346			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910	627726			Z
Aliph	nC31	34.3470	1186371			Z
Aliph	nC32	35.5720	1256819			Z
Aliph	nC33	37.0130	574476			Z
Aliph	nC34	38.7280	786268			Z
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007789**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:30:47 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

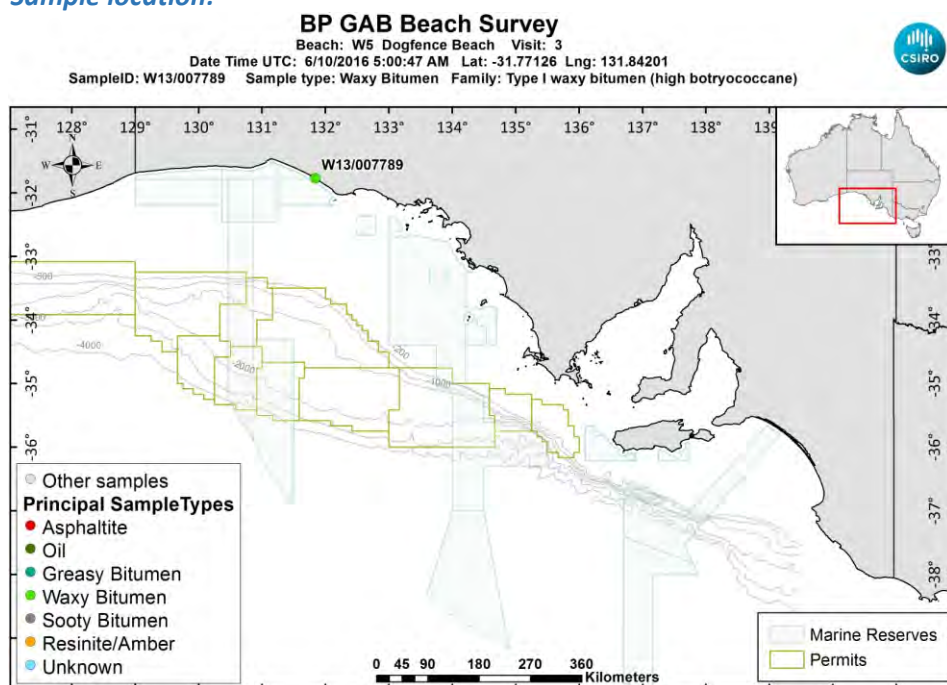
Size (cm): 2.9

Latitude (Y): -31.771255

Weight (gm): 4.98566

Longitude (X): 131.842012

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007789_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007789_146A6456.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007789_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007789_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

(default units ppb)

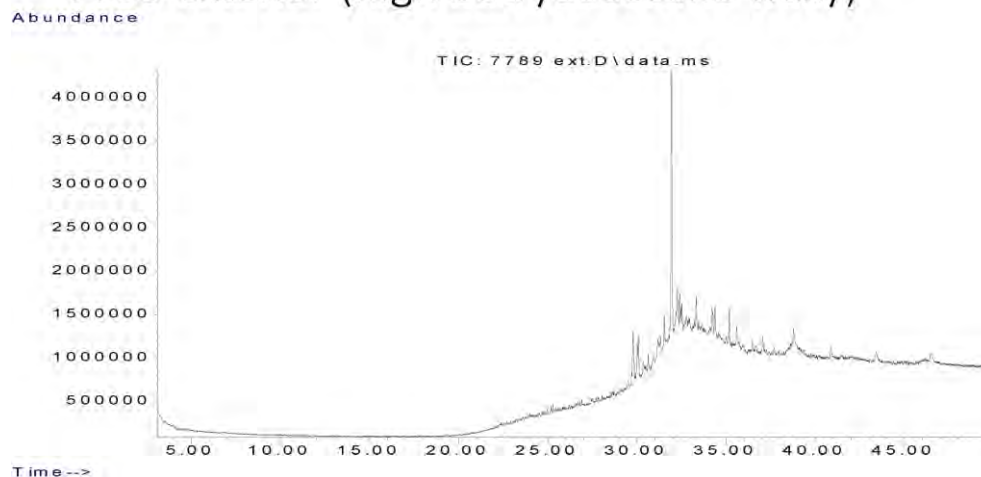
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			88.2626953984662	percent	Y
Inorg	Hydrogen			9.77674425447316	percent	Y
Inorg	Nitrogen			0.172198457583548	percent	Y
Inorg	Sulphur			2.14582401970997	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007789_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB BCH1\GCMS\W13 007789_ext WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7789 exterior (high botryococcane waxy)



Data Sheet:

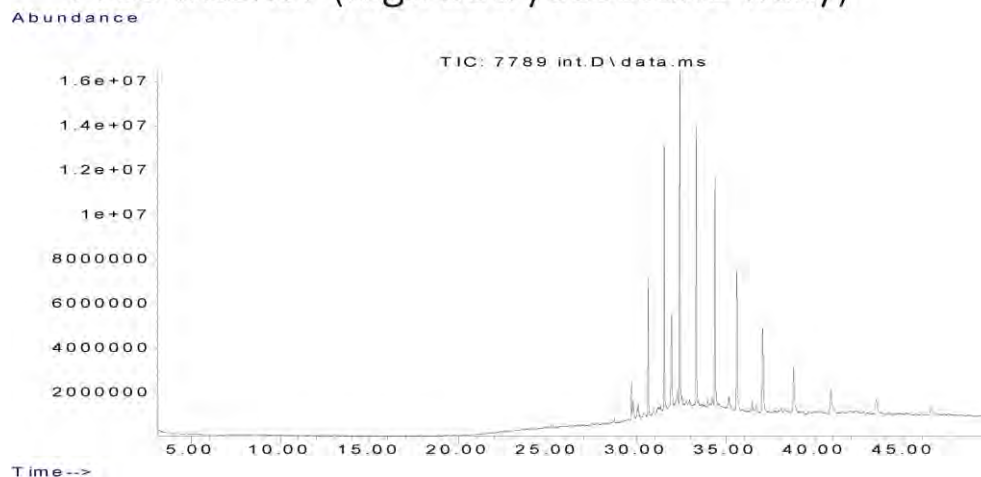
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	25629191			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	258711			Z
Aliph	nC26	29.6680	155602			Z
Aliph	nC27	30.6080	926443			Z
Aliph	nC28	31.5080	1639762			Z
Aliph	nC29	32.3700	1532892			Z
Aliph	nC30	33.2910	2078354			Z
Aliph	nC31	34.3470	1942833			Z
Aliph	nC32	35.5720	1629192			Z
Aliph	nC33	37.0130	1654400			Z
Aliph	nC34	38.7280	2681727			Z
Aliph	nC35	40.8080	1404625			Z
Aliph	nC36	43.3510	1999928			Z
Aliph	nC37	46.4710	1701262			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007789 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007789_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7789 interior (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	33512829			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	918102			Z
Aliph	nC26	29.6680	7767193			Z
Aliph	nC27	30.6080	31807526			Z
Aliph	nC28	31.5080	55954973			Z
Aliph	nC29	32.3700	72643504			Z
Aliph	nC30	33.2910	69296462			Z
Aliph	nC31	34.3470	64531990			Z
Aliph	nC32	35.5720	47632058			Z
Aliph	nC33	37.0130	33259161			Z
Aliph	nC34	38.7280	20897570			Z
Aliph	nC35	40.8080	13978293			Z
Aliph	nC36	43.3510	10105323			Z
Aliph	nC37	46.4710	6776102			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007790**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:31:55 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

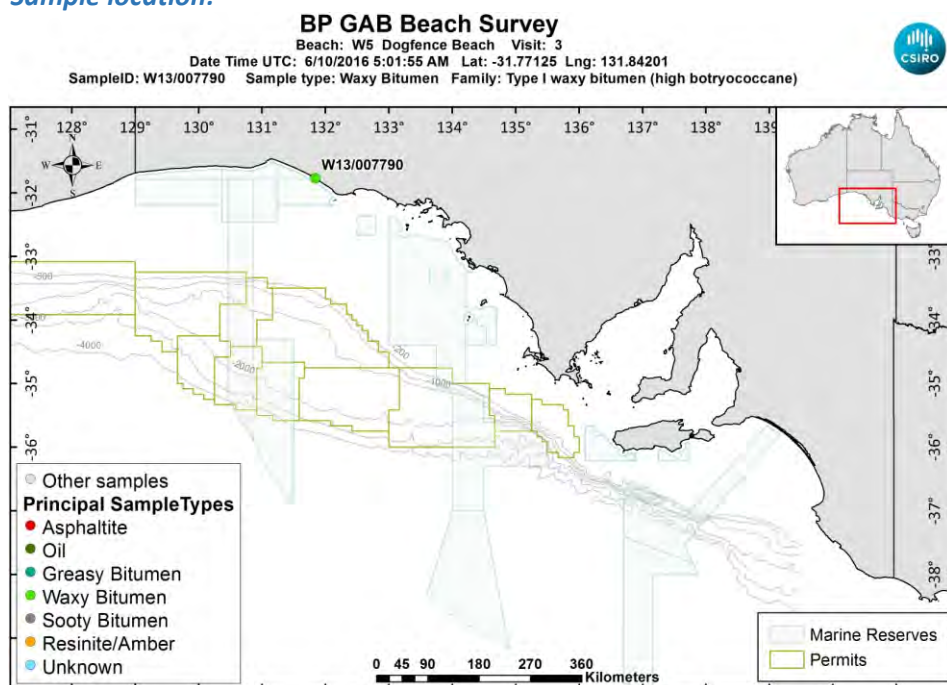
Size (cm): 2.7

Latitude (Y): -31.771247

Weight (gm): 3.09497

Longitude (X): 131.842012

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007790_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007790_146A6458.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007790_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: **W13/007790_SPE_ELEM-AN/01**

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			85.2375727242414	percent	Y
Inorg	Hydrogen			9.42285586481113	percent	Y
Inorg	Nitrogen			0.204169665809769	percent	Y
Inorg	Sulphur			2.12141786349913	percent	Y

Results for: GCMS with Full Scan

Unique ID: **W13/007790 DISS GCMS-Scan/01**

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007790_bulk_WholeOil.jpg](#)

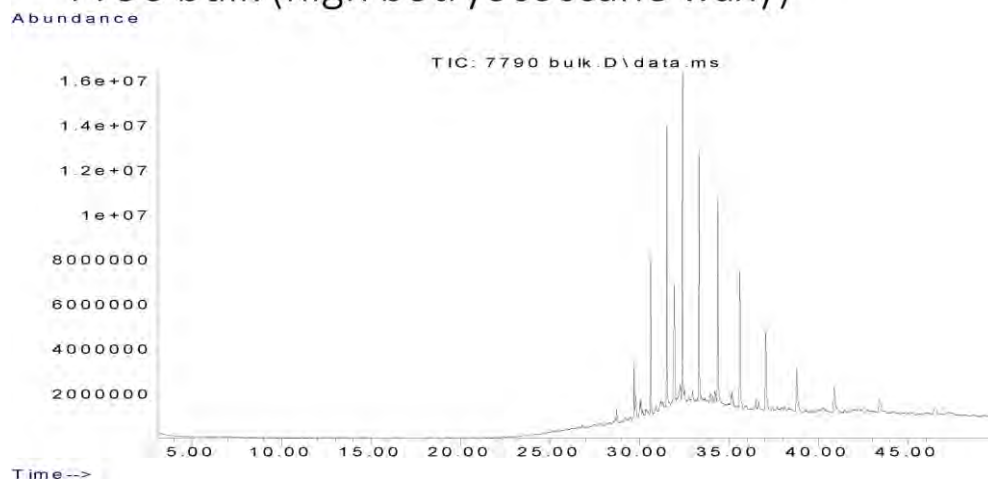
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7790 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	41466549			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620	678723			Z
Aliph	nC24	27.7060	526940			Z
Aliph	nC25	28.7100	2535093			Z
Aliph	nC26	29.6680	9955643			Z
Aliph	nC27	30.6080	35370643			Z
Aliph	nC28	31.5080	55764469			Z
Aliph	nC29	32.3700	65954456			Z
Aliph	nC30	33.2910	62779775			Z
Aliph	nC31	34.3470	59681908			Z
Aliph	nC32	35.5720	46444274			Z
Aliph	nC33	37.0130	30993404			Z
Aliph	nC34	38.7280	20865160			Z
Aliph	nC35	40.8080	13638067			Z
Aliph	nC36	43.3510	9759446			Z
Aliph	nC37	46.4710	6490006			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007791**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:33:00 PM

Type: Resinite/Amber

Family: Resin/Amber

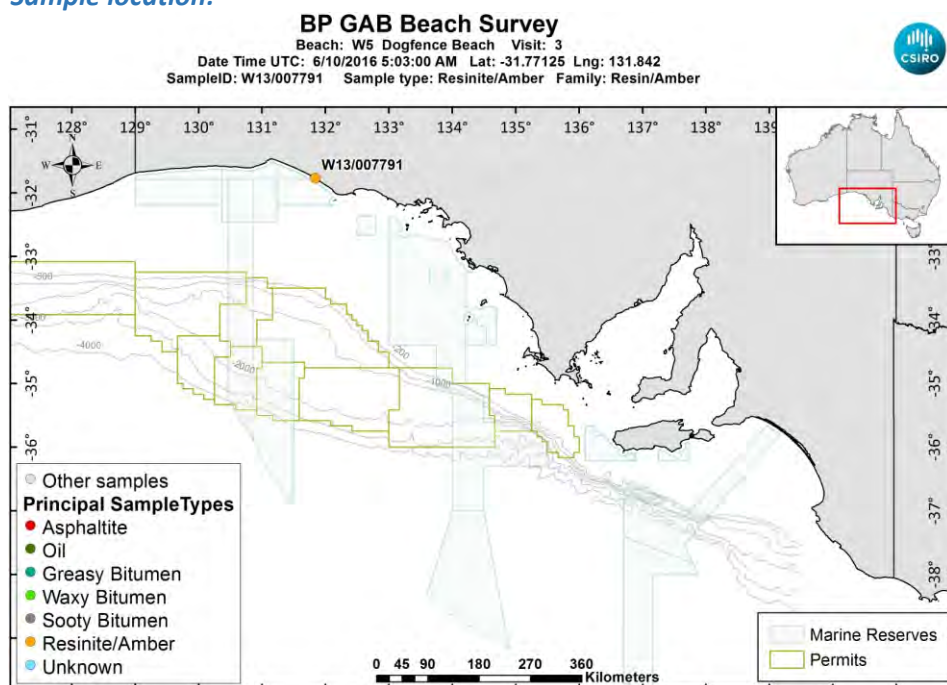
Size (cm): 3.3

Latitude (Y): -31.771248

Weight (gm): 6.85867

Longitude (X): 131.841997

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007791_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007791_146A6460.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007791_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007791 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007792**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:34:07 PM

Type: Waxy Bitumen

Family: Unknown

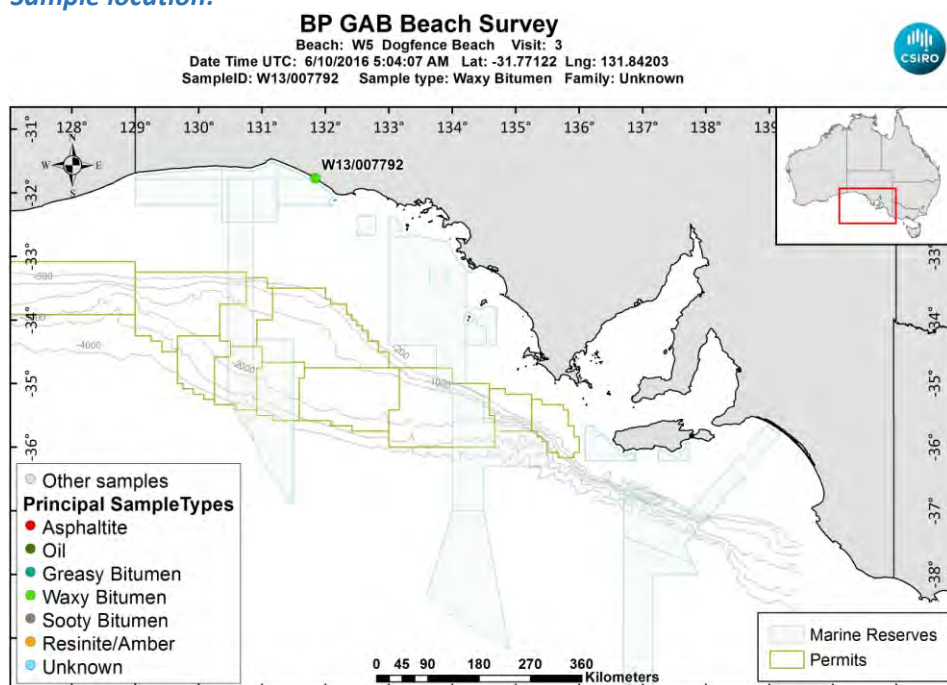
Size (cm): 2.3

Latitude (Y): -31.771218

Weight (gm): 2.31567

Longitude (X): 131.842028

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007792_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007792_146A6461.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007792_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007792_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

(default units ppb)

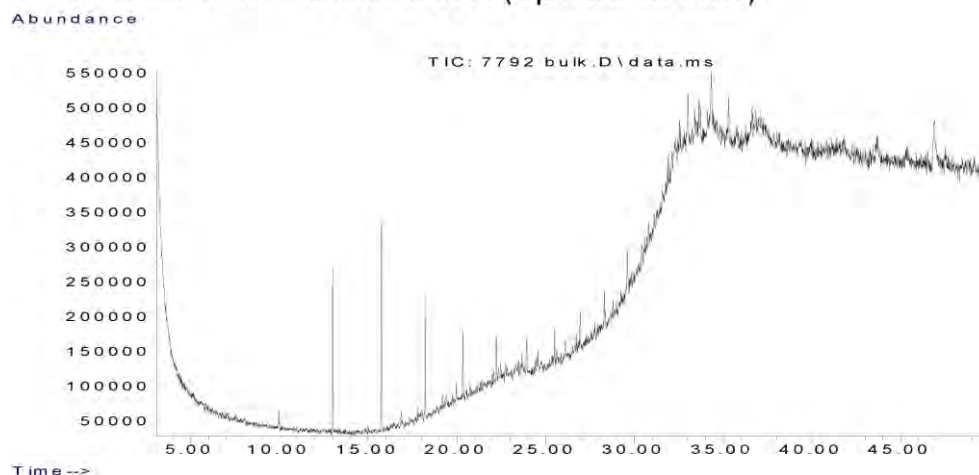
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			84.7874385128376	percent	Y
Inorg	Hydrogen			10.2709538767396	percent	Y
Inorg	Nitrogen			0.24805912596401	percent	Y
Inorg	Sulphur			3.55075670799052	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007792 DISS GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007792_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:	Bulk (splittless)		

Results for: GCMS with Full Scan

7792 bulk – Unknown (splitless run)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007793**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 3:37:27 PM

Type: Resinite/Amber

Family: Resin/Amber

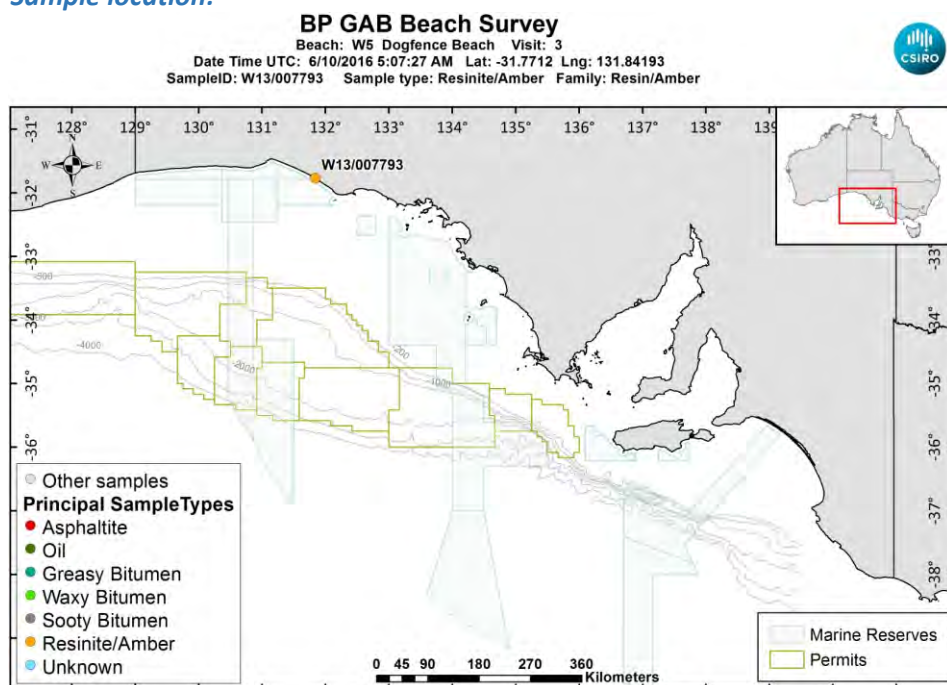
Size (cm): 5.9

Latitude (Y): -31.771198

Weight (gm): 42.46544

Longitude (X): 131.841928

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007793_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007793_146A6463.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007793_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: GCMS with Full Scan

Unique ID: W13/007793 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007794A**

Beach W5: Dogfence Beach Visit: 3

Comments:

three pieces. Part A

Location: Shore Upper

Local Date Time: 6/10/2016 3:38:26 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

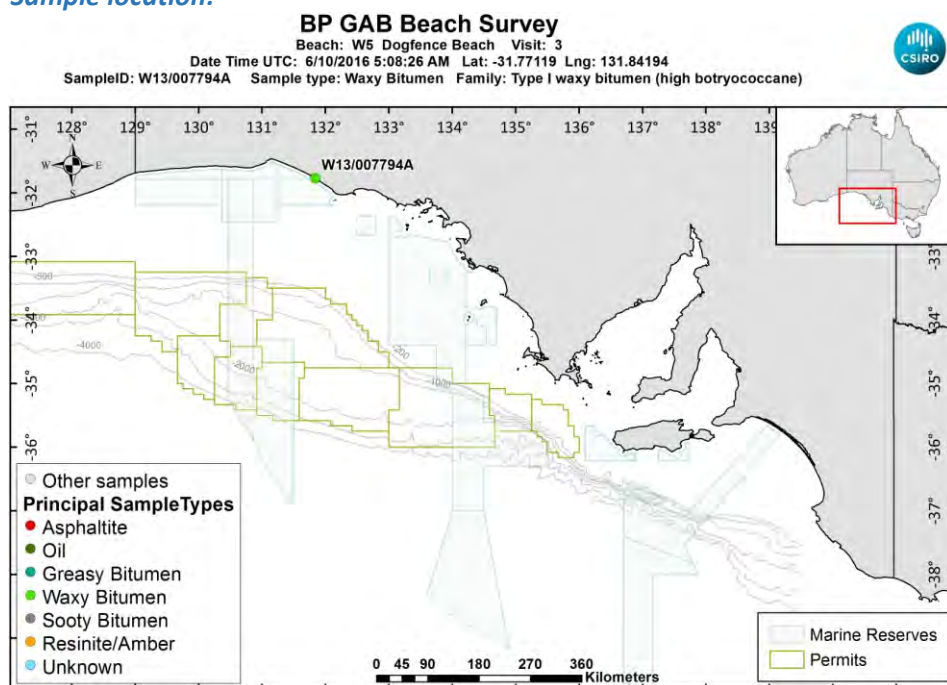
Size (cm): 2.7

Latitude (Y): -31.771192

Weight (gm): 4.19693

Longitude (X): 131.841935

Sample location:



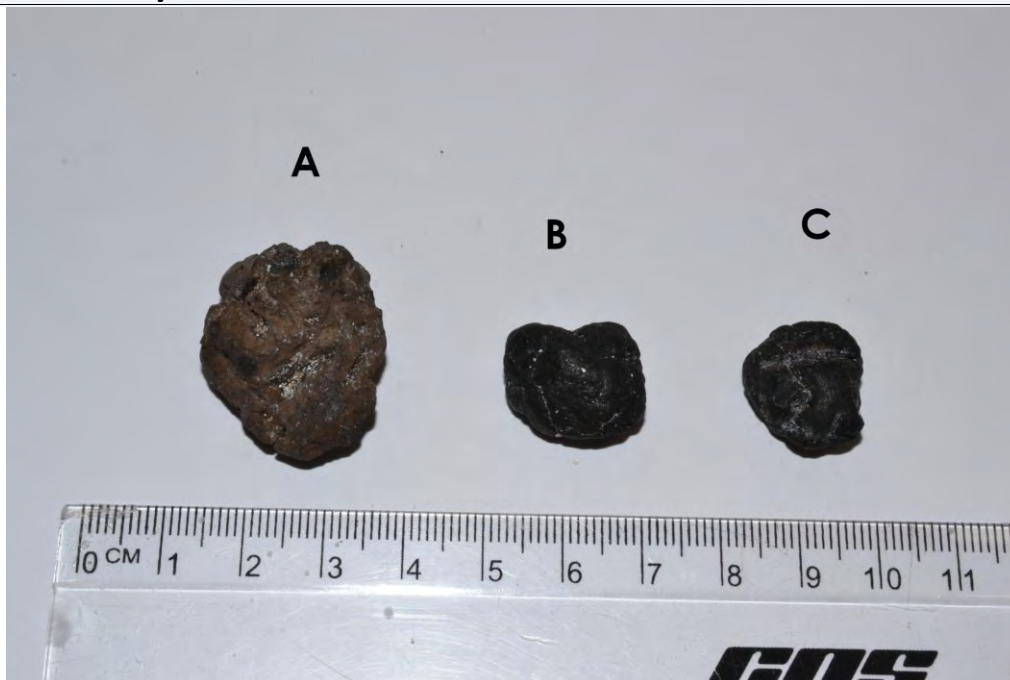
[LinkedFiles\GAB_BCH1\SampleLocations\W13_007794A_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007794_146A6465.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007794_ABC_Photo02.jpg](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007794A_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			85.17	percent	Y
Inorg	Hydrogen			9.10585439363817	percent	Y
Inorg	Nitrogen			0.24	percent	Y
Inorg	Sulphur			2.1495367863292	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007794A DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007794A_bulk_WholeOil.jpg](#)

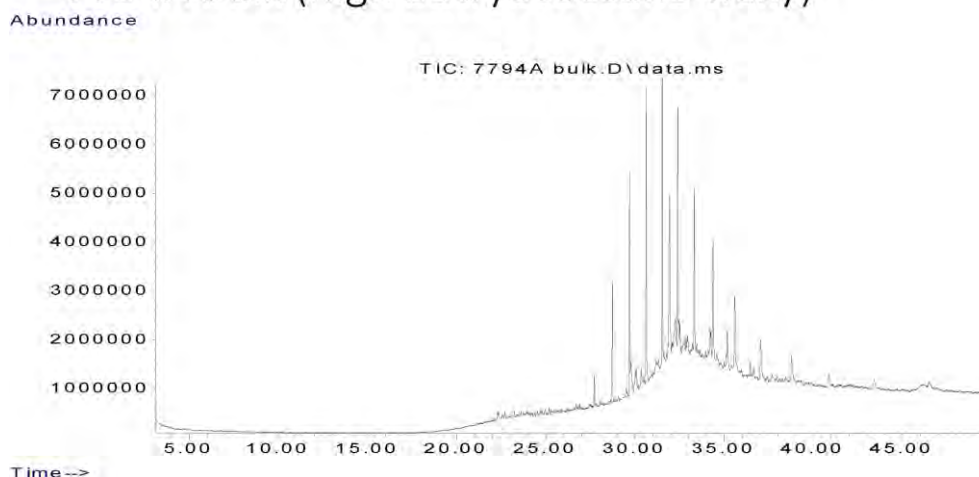
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7794A bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	27622626			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060	2947861			Z
Aliph	nC25	28.7100	11330737			Z
Aliph	nC26	29.6680	20084654			Z
Aliph	nC27	30.6080	28581536			Z
Aliph	nC28	31.5080	26528951			Z
Aliph	nC29	32.3700	24257921			Z
Aliph	nC30	33.2910	18684335			Z
Aliph	nC31	34.3470	15374140			Z
Aliph	nC32	35.5720	11307296			Z
Aliph	nC33	37.0130	7815757			Z
Aliph	nC34	38.7280	5417674			Z
Aliph	nC35	40.8080	3475403			Z
Aliph	nC36	43.3510	2857453			Z
Aliph	nC37	46.4710	2176865			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007794B**

Beach W5: Dogfence Beach Visit: 3

Comments:

Part B subsample

Location: Shore Upper

Local Date Time: 6/10/2016 3:38:26 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

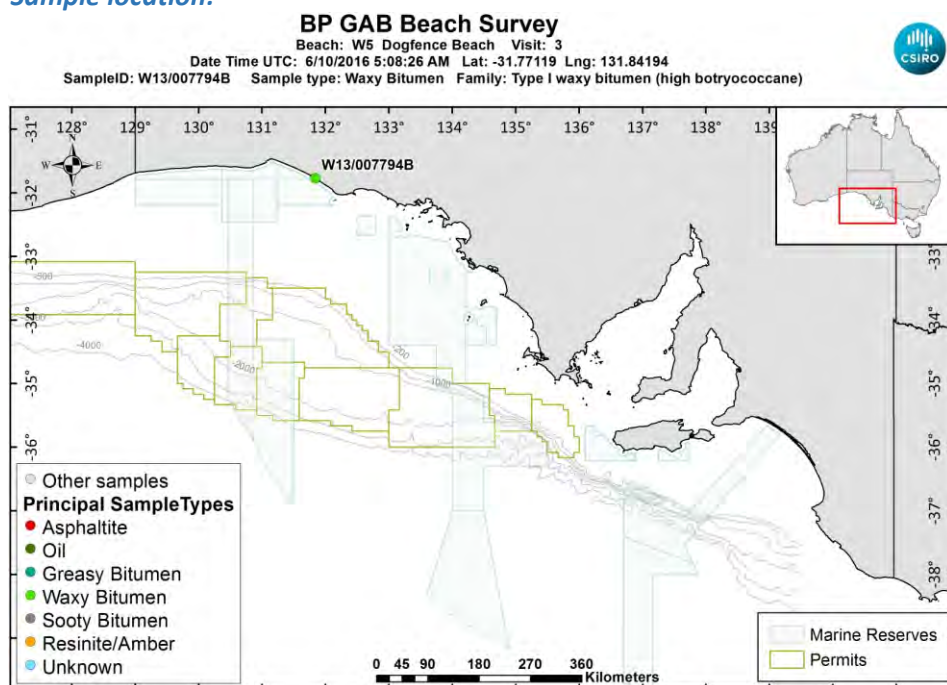
Size (cm): 1.8

Latitude (Y): -31.771192

Weight (gm): 1.7027

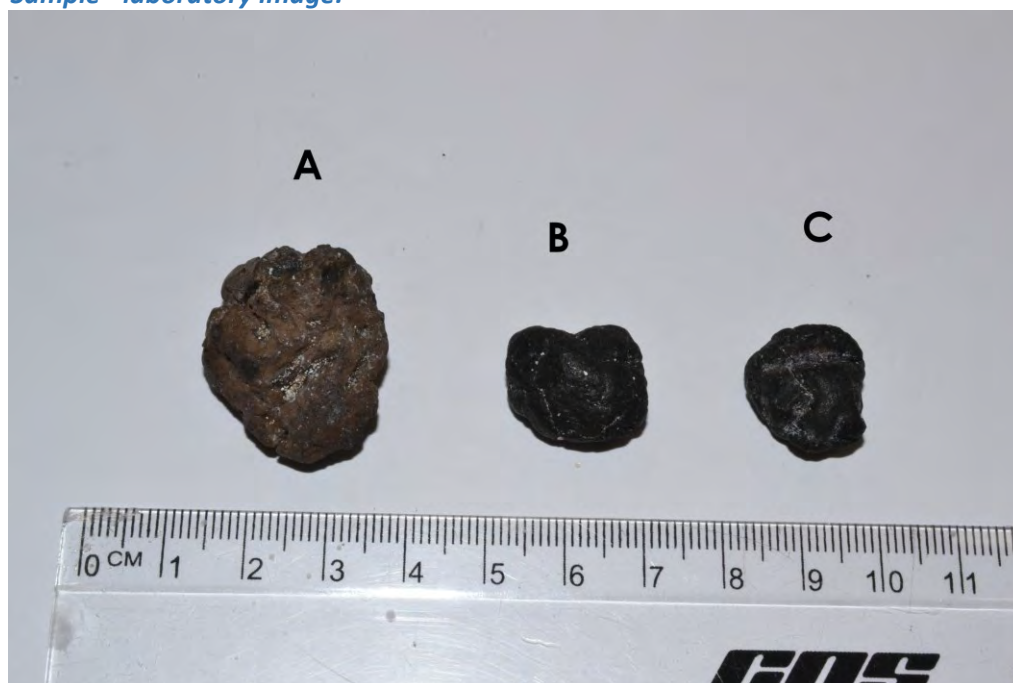
Longitude (X): 131.841935

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007794B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007794_ABC_Photo02.jpg](#)

Sample ID : W13/007794B**Beach W5: Dogfence Beach Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007794B_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

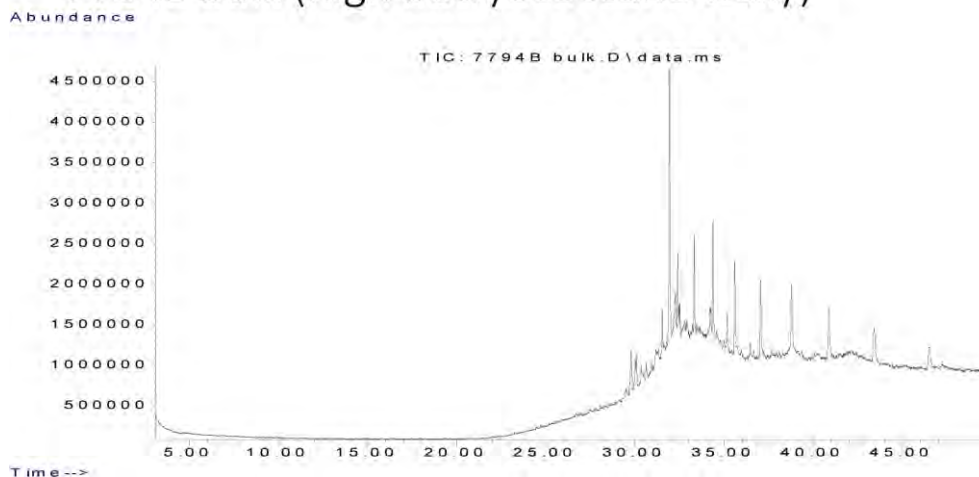
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			88.49	percent	Y
Inorg	Hydrogen			11.61558	percent	Y
Inorg	Nitrogen			0.32	percent	Y
Inorg	Sulphur			2.65847501965481	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007794B_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007794B_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7794B bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	26633677			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080	1084293			Z
Aliph	nC28	31.5080	2905825			Z
Aliph	nC29	32.3700	5035078			Z
Aliph	nC30	33.2910	7243161			Z
Aliph	nC31	34.3470	9750527			Z
Aliph	nC32	35.5720	9136477			Z
Aliph	nC33	37.0130	8575293			Z
Aliph	nC34	38.7280	9109285			Z
Aliph	nC35	40.8080	8091892			Z
Aliph	nC36	43.3510	6079850			Z
Aliph	nC37	46.4710	4916112			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007794C**

Beach W5: Dogfence Beach Visit: 3

Comments:

Part C subsample

Location: Shore Upper

Local Date Time: 6/10/2016 3:38:26 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

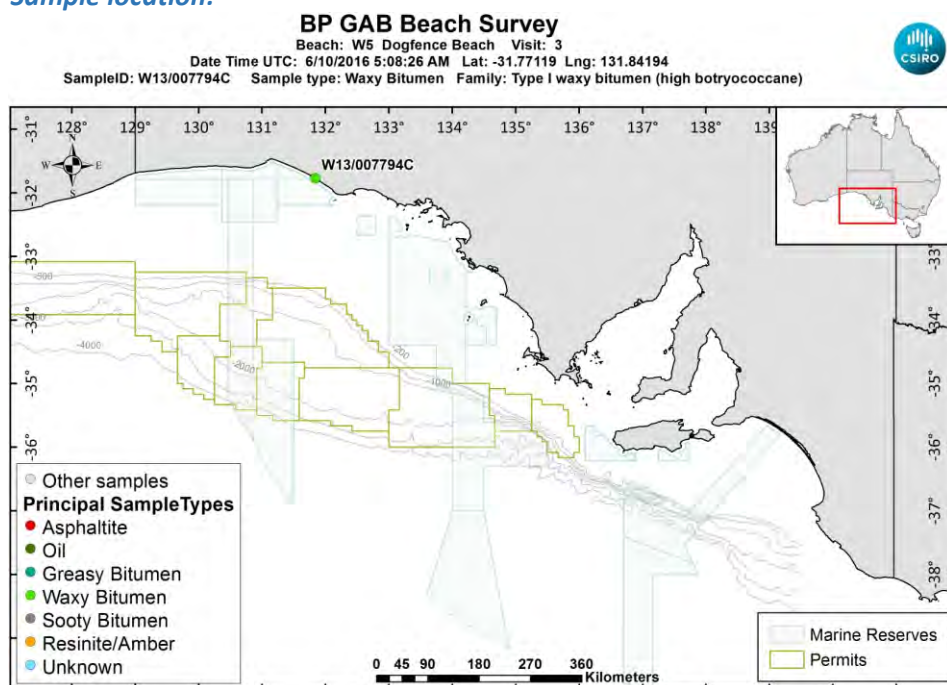
Size (cm): 1.6

Latitude (Y): -31.771192

Weight (gm): 1.07076

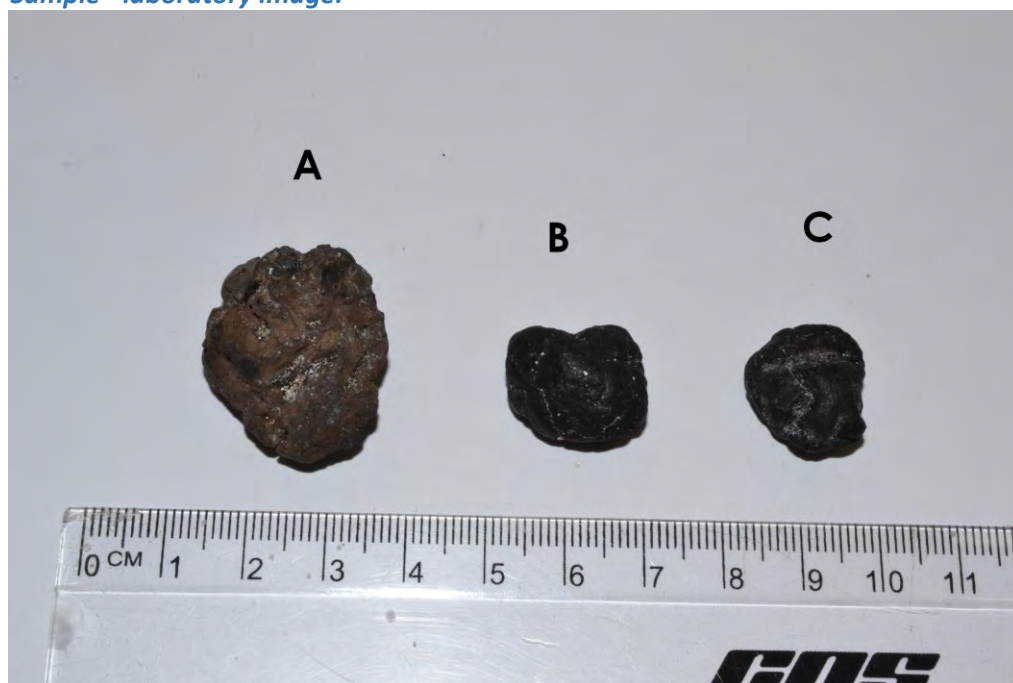
Longitude (X): 131.841935

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007794C_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007794_ABC_Photo02.jpg](#)

Sample ID : W13/007794C**Beach W5: Dogfence Beach Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007794C_SPE_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

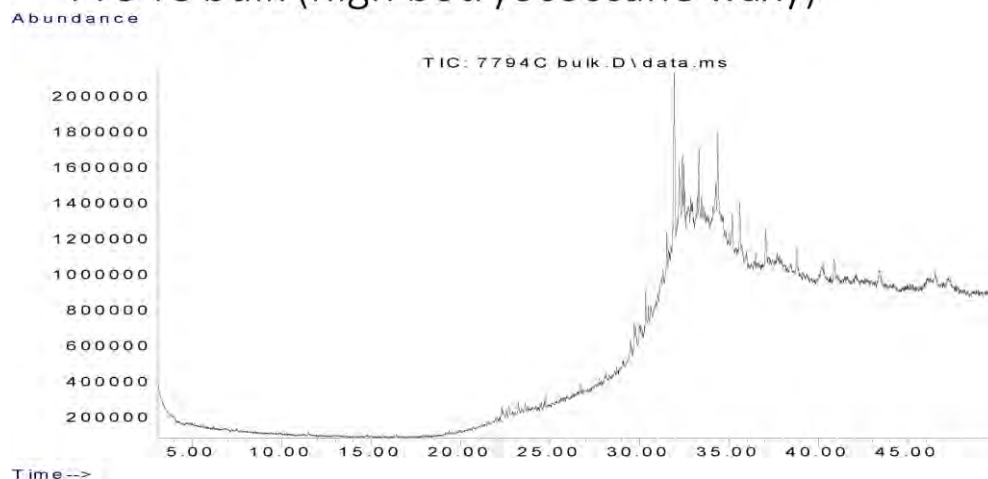
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.17	percent	Y
Inorg	Hydrogen			10.3350658449304	percent	Y
Inorg	Nitrogen			0.29	percent	Y
Inorg	Sulphur			2.28716931218014	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007794C_DISS_GCMS-Scan/01****Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007794C_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7794C bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	7751317			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080	899704			Z
Aliph	nC29	32.3700	1308019			Z
Aliph	nC30	33.2910	1983847			Z
Aliph	nC31	34.3470	2966537			Z
Aliph	nC32	35.5720	2260480			Z
Aliph	nC33	37.0130	2075296			Z
Aliph	nC34	38.7280	1478203			Z
Aliph	nC35	40.8080	1626602			Z
Aliph	nC36	43.3510	1452685			Z
Aliph	nC37	46.4710	1105840			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007795**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 3:40:16 PM

Type: Resinite/Amber

Family: Resin/Amber

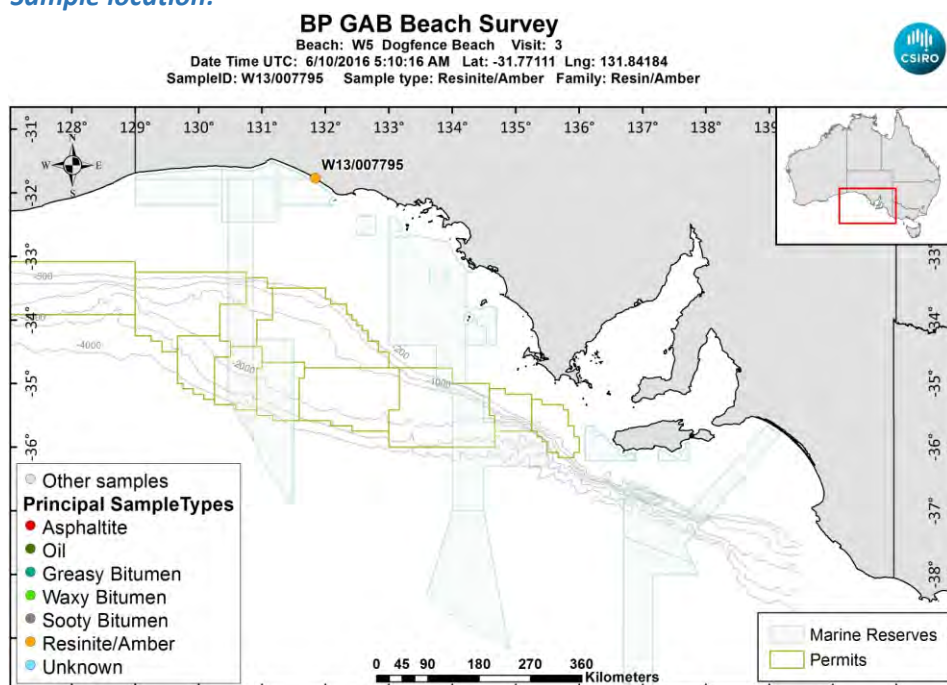
Size (cm): 4.5

Latitude (Y): -31.771110

Weight (gm): 27.66082

Longitude (X): 131.841842

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007795_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007795_146A6467.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\W13 007795 Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: GCMS with Full Scan

Unique ID: W13/007795 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007796**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:43:39 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

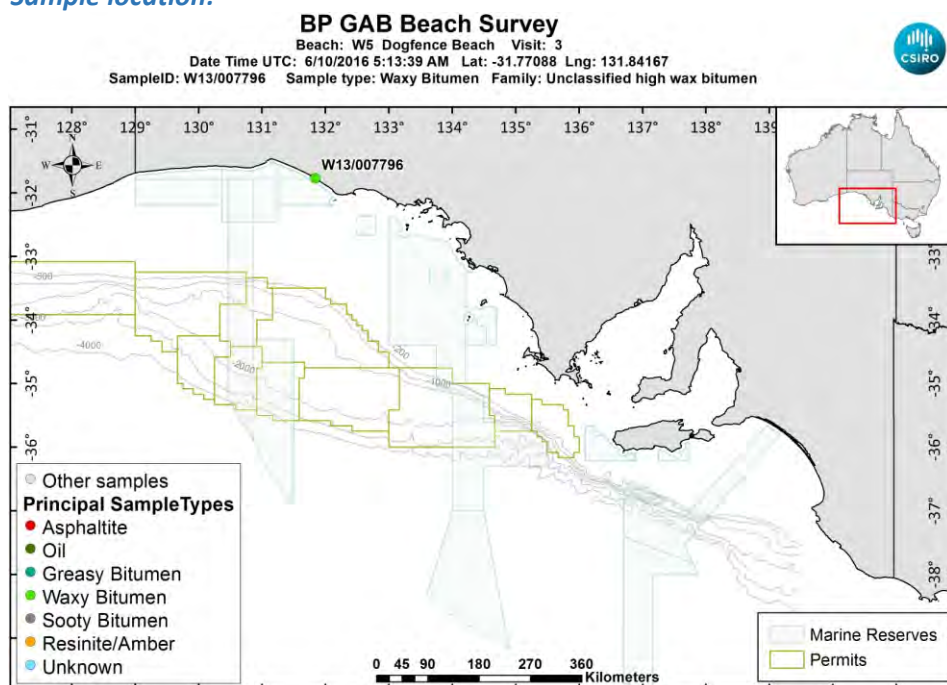
Size (cm): 2.5

Latitude (Y): -31.770882

Weight (gm): 2.10068

Longitude (X): 131.841673

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007796_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007796_146A6469.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007796_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007796_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

(default units ppb)

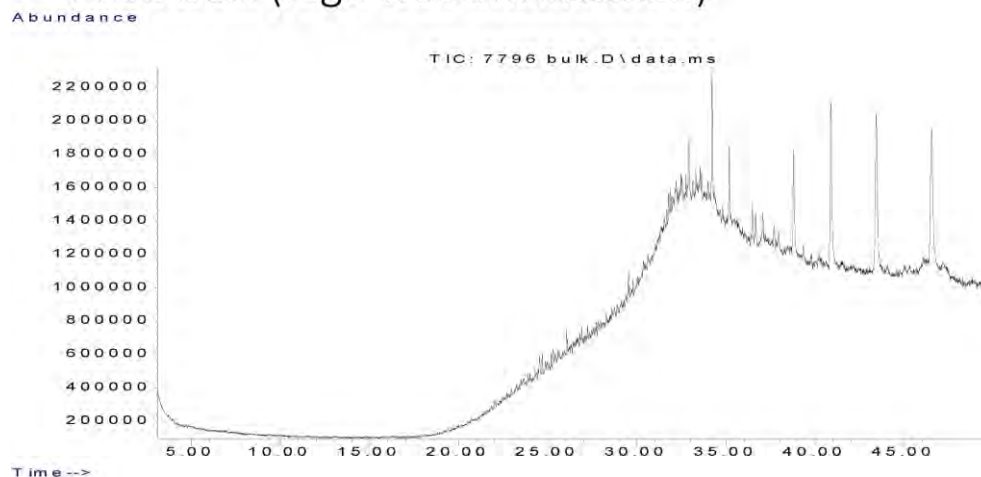
Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			84.88	percent	Y
Inorg	Hydrogen			7.66714803180915	percent	Y
Inorg	Nitrogen			0.2	percent	Y
Inorg	Sulphur			2.77118130629432	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007796 DISS GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007796_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment: Bulk			

Results for: GCMS with Full Scan

7796 bulk (high wax unclassified)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130	1532011			Z
Aliph	nC34	38.7280	6239082			Z
Aliph	nC35	40.8080	13024282			Z
Aliph	nC36	43.3510	15112350			Z
Aliph	nC37	46.4710	15153993			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007797**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:44:54 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

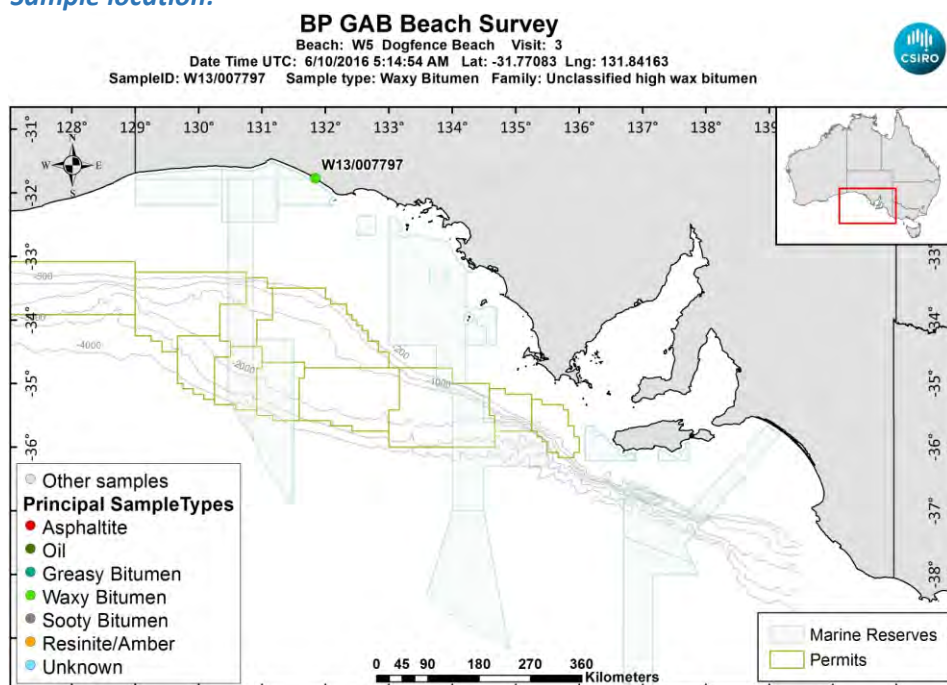
Size (cm): 4

Latitude (Y): -31.770833

Weight (gm): 13.9958

Longitude (X): 131.841628

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007797_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007797_146A6471.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007797_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007797_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

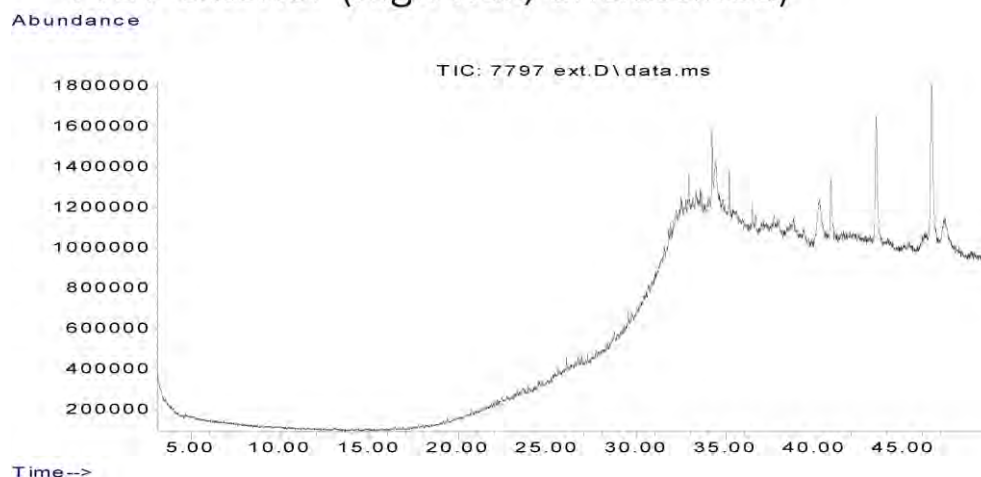
(default units ppb)					
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units: Qualifier:
Inorg	Carbon			82.54	percent Y
Inorg	Hydrogen			8.26445009940358	percent Y
Inorg	Nitrogen			0.18	percent Y
Inorg	Sulphur			2.9140555291416	percent Y

Results for: GCMS with Full Scan**Unique ID:** W13/007797_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007797_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7797 exterior (high wax, unclassified)



Data Sheet:

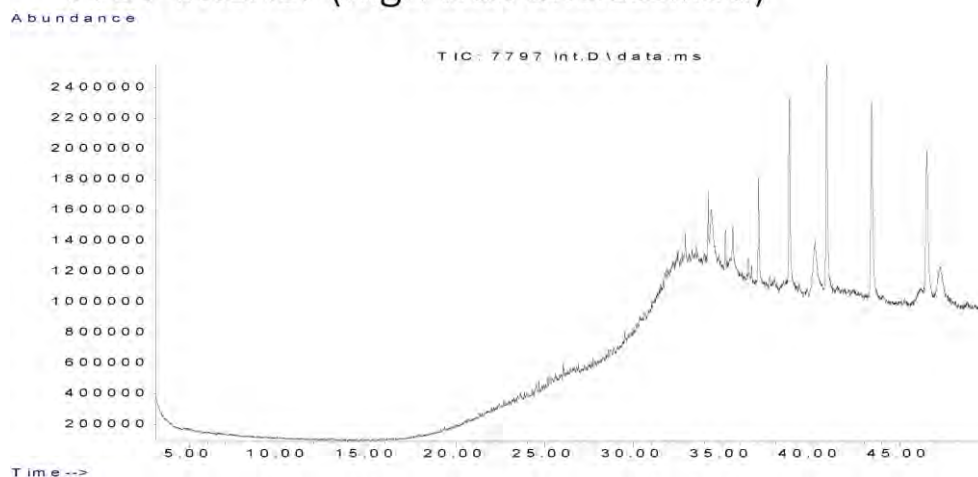
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280	790133			Z
Aliph	nC35	40.8080	3034192			Z
Aliph	nC36	43.3510	9032305			Z
Aliph	nC37	46.4710	14608766			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007797 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007797_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7797 interior (high wax unclassified)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720	1974030			Z
Aliph	nC33	37.0130	5900245			Z
Aliph	nC34	38.7280	13681113			Z
Aliph	nC35	40.8080	19040301			Z
Aliph	nC36	43.3510	18810450			Z
Aliph	nC37	46.4710	15956247			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007798**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:46:07 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

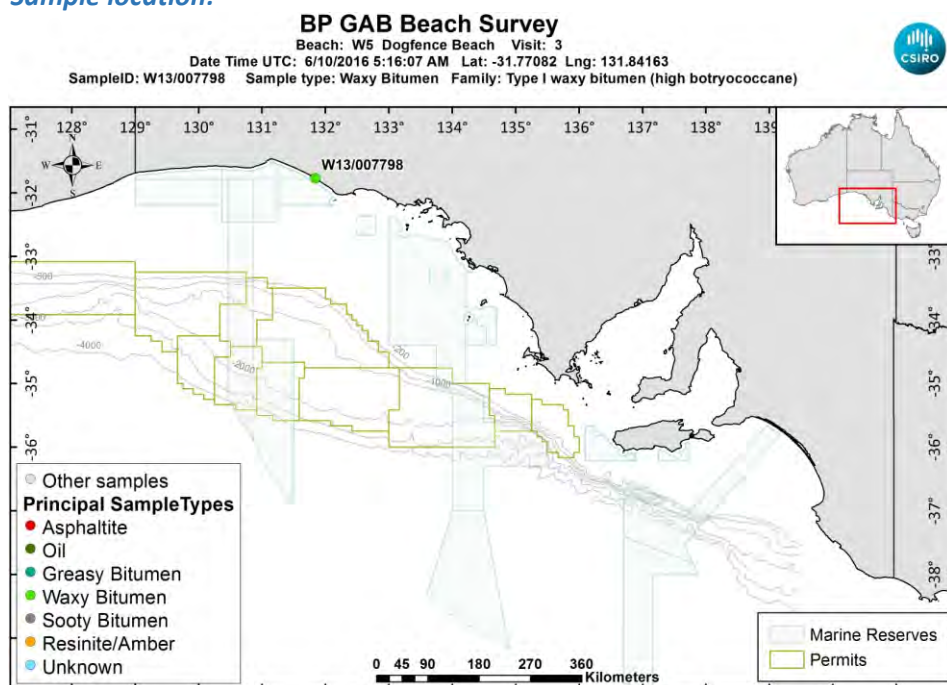
Size (cm): 2.5

Latitude (Y): -31.770815

Weight (gm): 0.98663

Longitude (X): 131.841632

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007798_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007798_146A6473.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007798_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007798_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			87.51	percent	Y
Inorg	Hydrogen			10.0382112922465	percent	Y
Inorg	Nitrogen			0.22	percent	Y
Inorg	Sulphur			2.2486974755563	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007798 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007798_bulk_WholeOil.jpg](#)

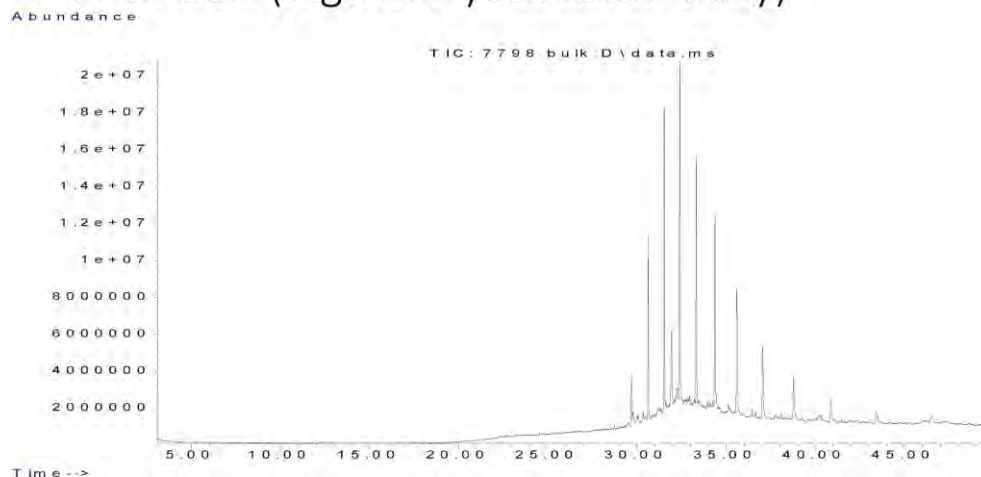
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7798 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	31738648			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100	1017830			Z
Aliph	nC26	29.6680	11275027			Z
Aliph	nC27	30.6080	46755461			Z
Aliph	nC28	31.5080	71912441			Z
Aliph	nC29	32.3700	84816505			Z
Aliph	nC30	33.2910	74440630			Z
Aliph	nC31	34.3470	65956850			Z
Aliph	nC32	35.5720	49415260			Z
Aliph	nC33	37.0130	32688980			Z
Aliph	nC34	38.7280	21350619			Z
Aliph	nC35	40.8080	12572907			Z
Aliph	nC36	43.3510	9684305			Z
Aliph	nC37	46.4710	6228630			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007799**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:48:41 PM

Type: Unknown

Family: Not bitumen (false sample)

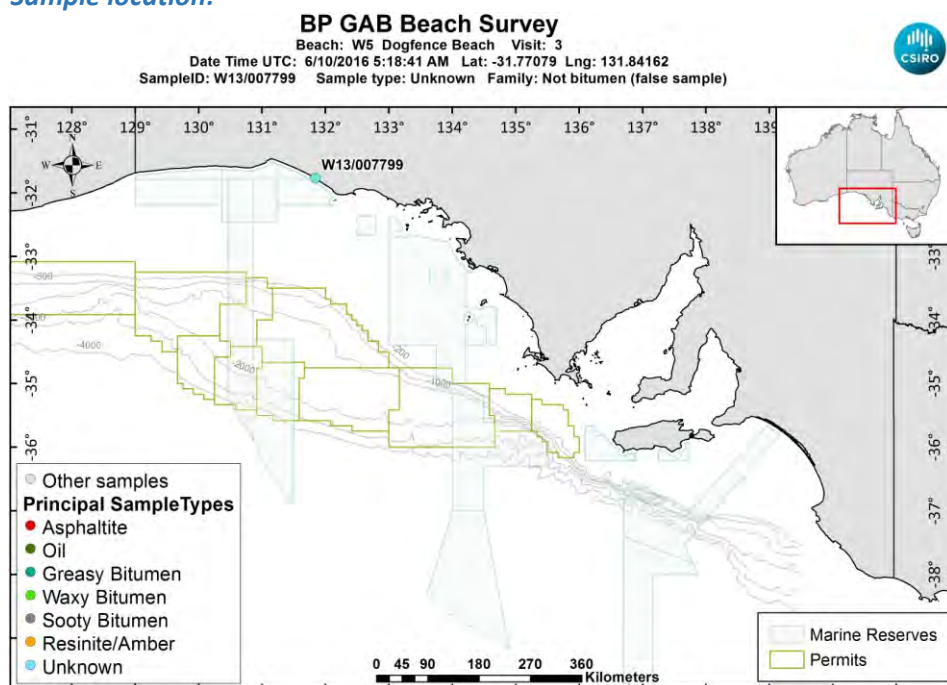
Size (cm): 4

Latitude (Y): -31.770790

Weight (gm): 4.45486

Longitude (X): 131.841623

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007799_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007799_146A6475.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB BCH1\Samples\W13 007799 Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: GCMS with Full Scan

Unique ID: W13/007799 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007800**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 3:50:53 PM

Type: Resinite/Amber

Family: Resin/Amber

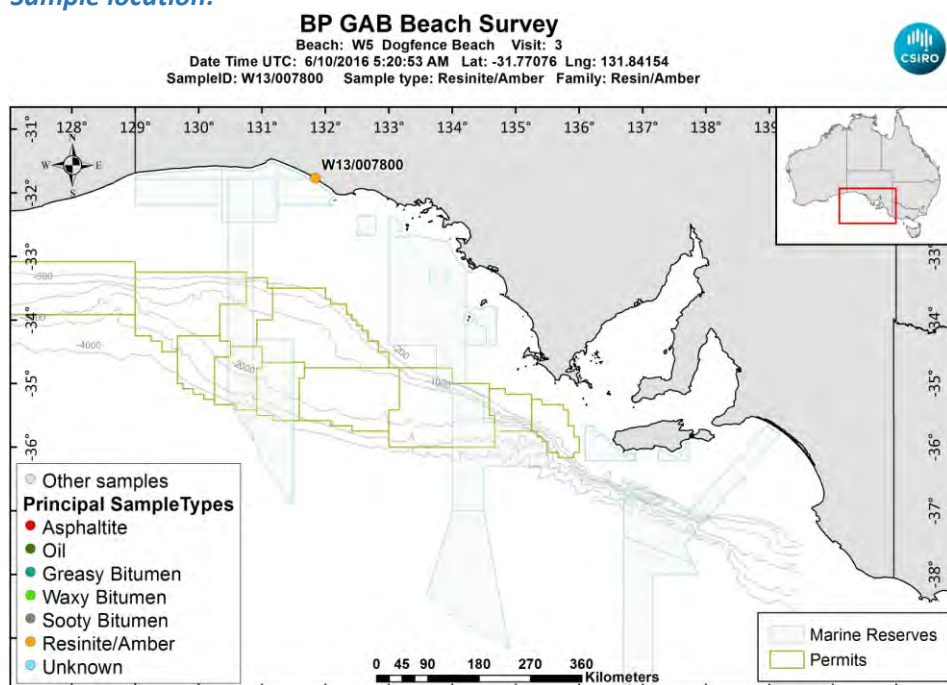
Size (cm): 3.7

Latitude (Y): -31.770760

Weight (gm): 10.88768

Longitude (X): 131.841542

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007800_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007800_146A6477.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007800_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007800 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007801**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:53:13 PM

Type: Asphaltite

Family: Unknown

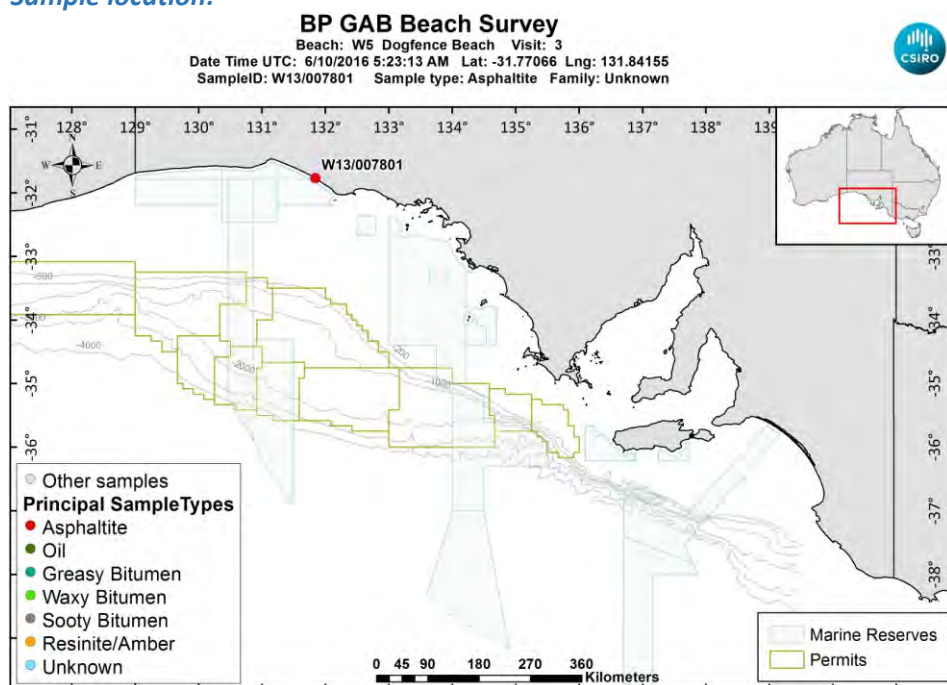
Size (cm): 8.7

Latitude (Y): -31.770660

Weight (gm): 140.4312

Longitude (X): 131.841548

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007801_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007801_146A6479.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007801_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 2
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007801 DISS GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: External Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			5.14694060392899	ratio	Y
BiomRatio	% C27 abb 20(R+S)			3.48736256674146	ratio	Y
BiomRatio	% C28 aaa 20R			26.4382482444634	ratio	Y
BiomRatio	% C28 abb 20(R+S)			29.8041145535982	ratio	Y
BiomRatio	% C29 aaa 20R			68.4148111516076	ratio	Y
BiomRatio	% C29 abb 20(R+S)			66.7085228796604	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			2.23751324503482E-03	ratio	Y
BiomRatio	25-Nor/C30H			4.36451162334843E-03	ratio	Y
BiomRatio	C19t/C23t			0.600893803969096	ratio	Y
BiomRatio	C22t/C21t			5.34260960882121E-02	ratio	Y
BiomRatio	C22t/C24t			4.65435416547544E-02	ratio	Y
BiomRatio	C23t/C30H			2.89142324625883E-03	ratio	Y
BiomRatio	C24t/C23t			0.662361763369187	ratio	Y
BiomRatio	C24Tet/C23t			0.492122405696107	ratio	Y
BiomRatio	C24Tet/C26t			0.566434176111595	ratio	Y
BiomRatio	C24Tet/C30H			1.42293416383454E-03	ratio	Y
BiomRatio	C26t/C25t			1.16511757834324	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			7.19307619837732E-02	ratio	Y
BiomRatio	C27 Dia/Ster			4.67479962696643E-02	ratio	Y
BiomRatio	C28BNH/C30H			1.61719960993601E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			19.1286456750586	ratio	Y
BiomRatio	C29H/C30H			0.417294552518743	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.155702500213253	ratio	Y
BiomRatio	C30DiaH/C30H			5.61146801272691E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			0.046993979797608	ratio	Y
BiomRatio	C35HS/C34HS			0.522781333197637	ratio	Y
BiomRatio	Gam/C30H			0.307899781369243	ratio	Y
BiomRatio	Gam/C31HR			1.25014005602241	ratio	Y
BiomRatio	Ole/C30H			7.78359442543585E-02	ratio	Y
BiomRatio	Sterane/hopane			0.321026320740442	ratio	Y
BiomRatio	Steranes/Terpanes			0.318715665501619	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			7.24989540500232E-03	ratio	Y

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007801 DISS GC-MS/02

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 2

for Analysis: Biomarkers

Preparation: Dissolved in solvent

Analysis Date: 18/07/2017

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			29.6311109084349	ratio	Y
BiomRatio	% C27 abb 20(R+S)			23.4486006189331	ratio	Y
BiomRatio	% C28 aaa 20R			26.5599114641687	ratio	Y
BiomRatio	% C28 abb 20(R+S)			30.1789669979241	ratio	Y
BiomRatio	% C29 aaa 20R			43.8089776273963	ratio	Y
BiomRatio	% C29 abb 20(R+S)			46.3724323831428	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			1.02692584969014E-02	ratio	Y
BiomRatio	25-Nor/C30H			6.18821483029777E-03	ratio	Y
BiomRatio	C19t/C23t			0.346552870119737	ratio	Y
BiomRatio	C22t/C21t			2.91578261874252E-02	ratio	Y
BiomRatio	C22t/C24t			3.99648723744259E-02	ratio	Y
BiomRatio	C23t/C30H			5.35502421369957E-03	ratio	Y
BiomRatio	C24t/C23t			0.669110209900685	ratio	Y
BiomRatio	C24Tet/C23t			0.697941451291289	ratio	Y
BiomRatio	C24Tet/C26t			0.621234855824881	ratio	Y
BiomRatio	C24Tet/C30H			3.73749337140947E-03	ratio	Y
BiomRatio	C26t/C25t			1.77769140488058	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			6.05894967818969E-02	ratio	Y
BiomRatio	C27 Dia/Ster			5.10400744847493E-02	ratio	Y
BiomRatio	C28BNH/C30H			1.73003633602466E-03	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.97762046173879	ratio	Y
BiomRatio	C29H/C30H			0.465349494370083	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			9.33813305075582E-02	ratio	Y
BiomRatio	C30DiaH/C30H			2.03184612178449E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			9.22228995858434E-02	ratio	Y
BiomRatio	C35HS/C34HS			0.680822975574683	ratio	Y
BiomRatio	Gam/C30H			0.242334924882852	ratio	Y
BiomRatio	Gam/C31HR			0.996759253070849	ratio	Y
BiomRatio	Ole/C30H			2.79333963350342E-02	ratio	Y
BiomRatio	Sterane/hopane			0.18235866864174	ratio	Y
BiomRatio	Steranes/Terpanes			0.179482476634476	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			1.60249182048098E-02	ratio	Y

Results for: Elemental Analyser

Unique ID: W13/007801_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

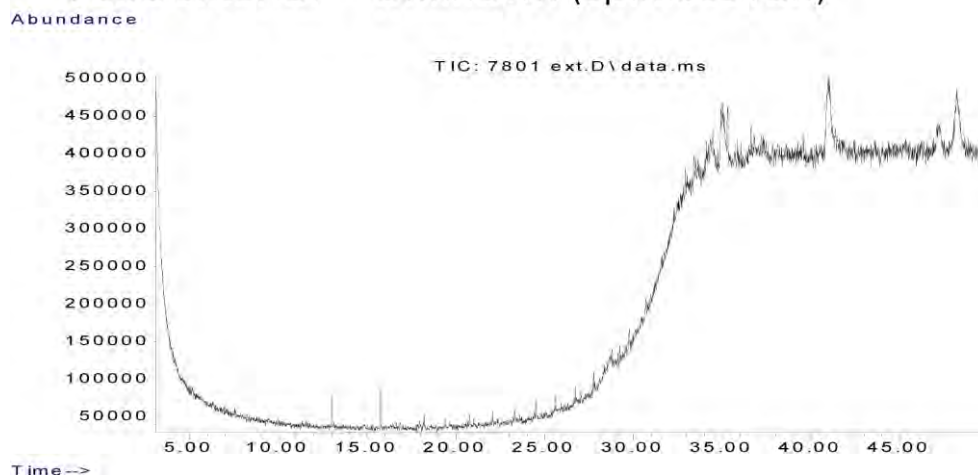
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			87.37	percent	Y
Inorg	Hydrogen			6.31480449304175	percent	Y
Inorg	Nitrogen			1.11	percent	Y
Inorg	Sulphur			2.36538001108453	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007801_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007801_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior (splitless)

Results for: GCMS with Full Scan

7801 exterior – Unknown (splitless run)



Data Sheet:

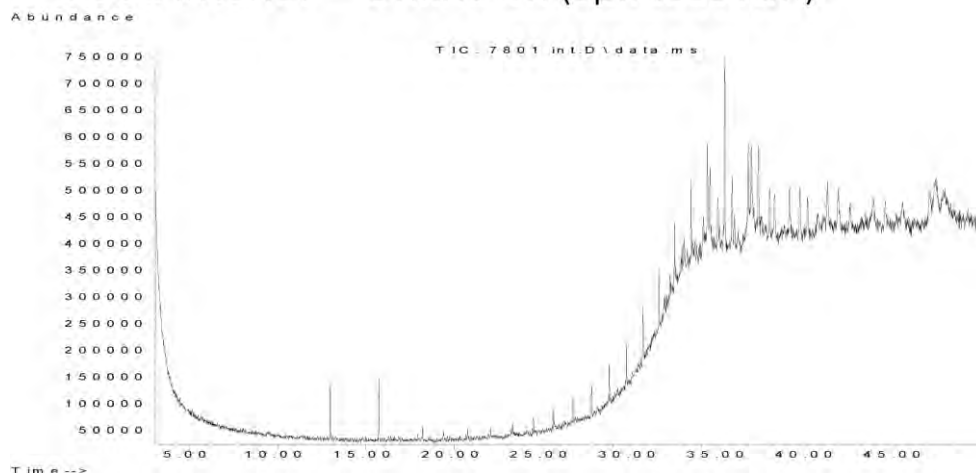
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007801 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007801_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior (splitless)

Results for: GCMS with Full Scan

7801 interior – Unknown (splitless run)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650	517547			Z
Aliph	nC30	33.4020	547091			Z
Aliph	nC31	34.4700	790281			Z
Aliph	nC32	35.7230	622769			Z
Aliph	nC33	37.1970	748490			Z
Aliph	nC34	38.9660	797006			Z
Aliph	nC35	41.0780	814719			Z
Aliph	nC36	43.6950	673517			Z
Aliph	nC37	46.8640	1240036			Z
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007802**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:55:52 PM

Type: Asphaltite

Family: Unknown

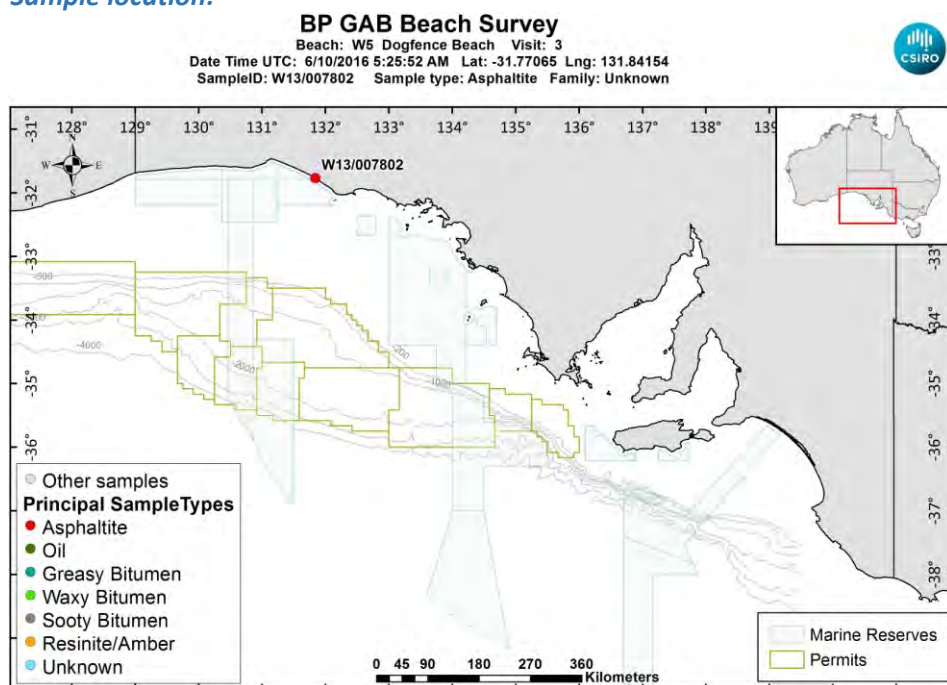
Size (cm): 4.4

Latitude (Y): -31.770652

Weight (gm): 21.24663

Longitude (X): 131.841543

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007802_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007802_146A6481.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007802_Photo03.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 2
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007802 DISS GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: External Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			27.7846805746484	ratio	Y
BiomRatio	% C27 abb 20(R+S)			21.4729747949974	ratio	Y
BiomRatio	% C28 aaa 20R			25.3488639968579	ratio	Y
BiomRatio	% C28 abb 20(R+S)			29.4000482118707	ratio	Y
BiomRatio	% C29 aaa 20R			46.8664554284937	ratio	Y
BiomRatio	% C29 abb 20(R+S)			49.1269769931318	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			1.98612919971949E-02	ratio	Y
BiomRatio	25-Nor/C30H			7.64243415123689E-03	ratio	Y
BiomRatio	C19t/C23t			0.191652674502279	ratio	Y
BiomRatio	C22t/C21t			8.45676760306457E-02	ratio	Y
BiomRatio	C22t/C24t			9.68253968253968E-02	ratio	Y
BiomRatio	C23t/C30H			0.013795959230056	ratio	Y
BiomRatio	C24t/C23t			0.574238426481171	ratio	Y
BiomRatio	C24Tet/C23t			0.47061645478532	ratio	Y
BiomRatio	C24Tet/C26t			0.677751422057435	ratio	Y
BiomRatio	C24Tet/C30H			6.49260542321176E-03	ratio	Y
BiomRatio	C26t/C25t			1.56147290445539	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			4.49159731760524E-02	ratio	Y
BiomRatio	C27 Dia/Ster			0.038506654549749	ratio	Y
BiomRatio	C28BNH/C30H			4.16581271513787E-03	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			2.2878514720083	ratio	Y
BiomRatio	C29H/C30H			0.497187089179454	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			9.13920122046849E-02	ratio	Y
BiomRatio	C30DiaH/C30H			1.54130437612195E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			0.107702362390572	ratio	Y
BiomRatio	C35HS/C34HS			0.771312424946916	ratio	Y
BiomRatio	Gam/C30H			0.326307803326341	ratio	Y
BiomRatio	Gam/C31HR			1.35186139779403	ratio	Y
BiomRatio	Ole/C30H			2.74489620104266E-02	ratio	Y
BiomRatio	Sterane/hopane			0.114591286337886	ratio	Y
BiomRatio	Steranes/Terpanes			0.112268733119912	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			2.06874447892139E-02	ratio	Y

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007802 DISS GC-MS/02

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 2

for Analysis: Biomarkers

Preparation: Dissolved in solvent

Analysis Date: 18/07/2017

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			30.9817879875692	ratio	Y
BiomRatio	% C27 abb 20(R+S)			22.6981282967975	ratio	Y
BiomRatio	% C28 aaa 20R			25.2828446964196	ratio	Y
BiomRatio	% C28 abb 20(R+S)			29.2157906322885	ratio	Y
BiomRatio	% C29 aaa 20R			43.7353673160112	ratio	Y
BiomRatio	% C29 abb 20(R+S)			48.0860810709141	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			0.022527616275079	ratio	Y
BiomRatio	25-Nor/C30H			7.3424536302961E-03	ratio	Y
BiomRatio	C19t/C23t			0.421125316482183	ratio	Y
BiomRatio	C22t/C21t			2.42031530713175E-02	ratio	Y
BiomRatio	C22t/C24t			4.31869754709505E-02	ratio	Y
BiomRatio	C23t/C30H			1.00701142583218E-02	ratio	Y
BiomRatio	C24t/C23t			0.580925278818188	ratio	Y
BiomRatio	C24Tet/C23t			0.517775313343517	ratio	Y
BiomRatio	C24Tet/C26t			0.632233833260942	ratio	Y
BiomRatio	C24Tet/C30H			5.21405656550758E-03	ratio	Y
BiomRatio	C26t/C25t			2.05163285631913	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			3.08757226554922E-02	ratio	Y
BiomRatio	C27 Dia/Ster			2.67407640594668E-02	ratio	Y
BiomRatio	C28BNH/C30H			3.31512434613581E-03	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			2.11850424150165	ratio	Y
BiomRatio	C29H/C30H			0.511952927046404	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.117127687755431	ratio	Y
BiomRatio	C30DiaH/C30H			1.41305252511418E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			0.116416021884226	ratio	Y
BiomRatio	C35HS/C34HS			0.775239851828436	ratio	Y
BiomRatio	Gam/C30H			0.322627151232926	ratio	Y
BiomRatio	Gam/C31HR			1.31940338120749	ratio	Y
BiomRatio	Ole/C30H			0.022892542392524	ratio	Y
BiomRatio	Sterane/hopane			0.12457783256134	ratio	Y
BiomRatio	Steranes/Terpanes			0.122352193953638	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			1.81904266346513E-02	ratio	Y

Results for: Elemental Analyser

Unique ID: W13/007802_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Preparation: Solid Phase Extract

Analysis Date: 30/10/2017

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

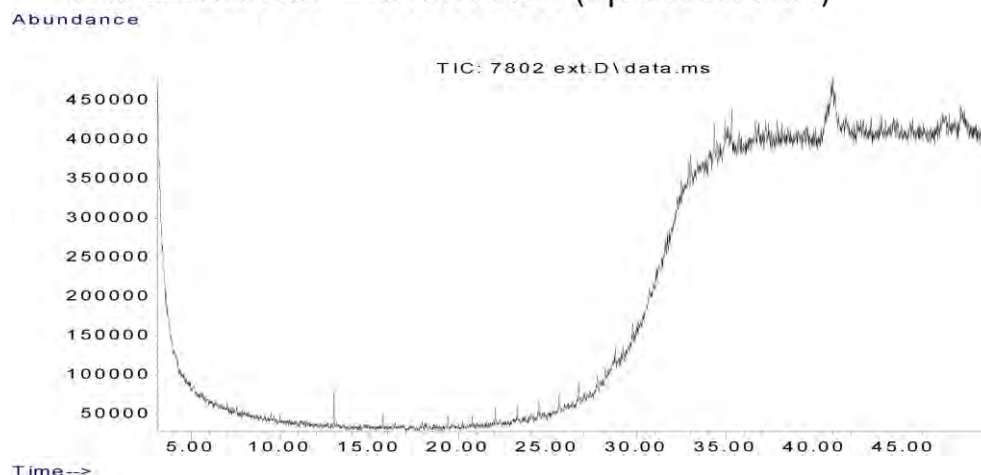
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			87.93	percent	Y
Inorg	Hydrogen			10.1591713717694	percent	Y
Inorg	Nitrogen			1.41	percent	Y
Inorg	Sulphur			3.66521009839183	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007802_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007802_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior (splitless)

Results for: GCMS with Full Scan

7802 exterior – Unknown (splitless run)



Data Sheet:

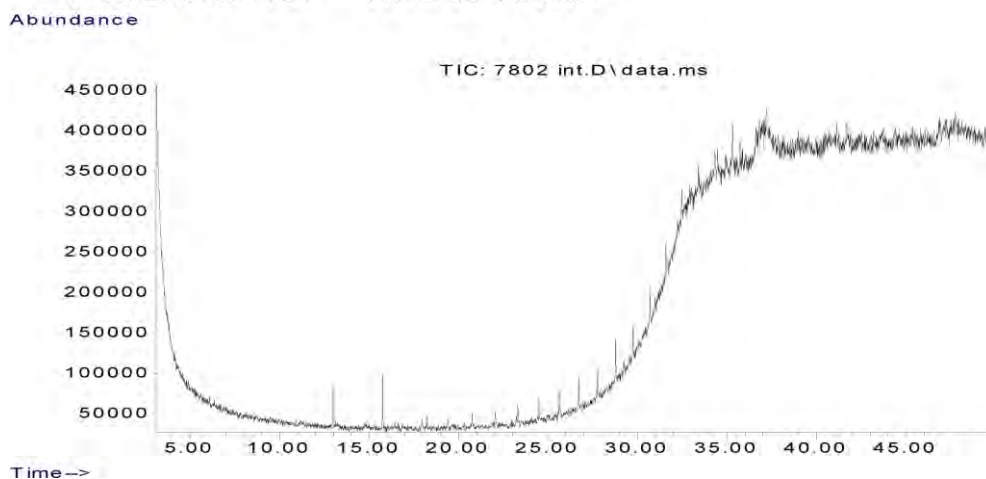
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007802 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007802_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior (splitless)

Results for: GCMS with Full Scan

7802 interior – needs rerun



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007803A**

Beach W5: Dogfence Beach Visit: 3

Comments:

two pieces. Part A

Location: Shore Upper

Local Date Time: 6/10/2016 3:57:34 PM

Type: Resinite/Amber

Family: Resin/Amber

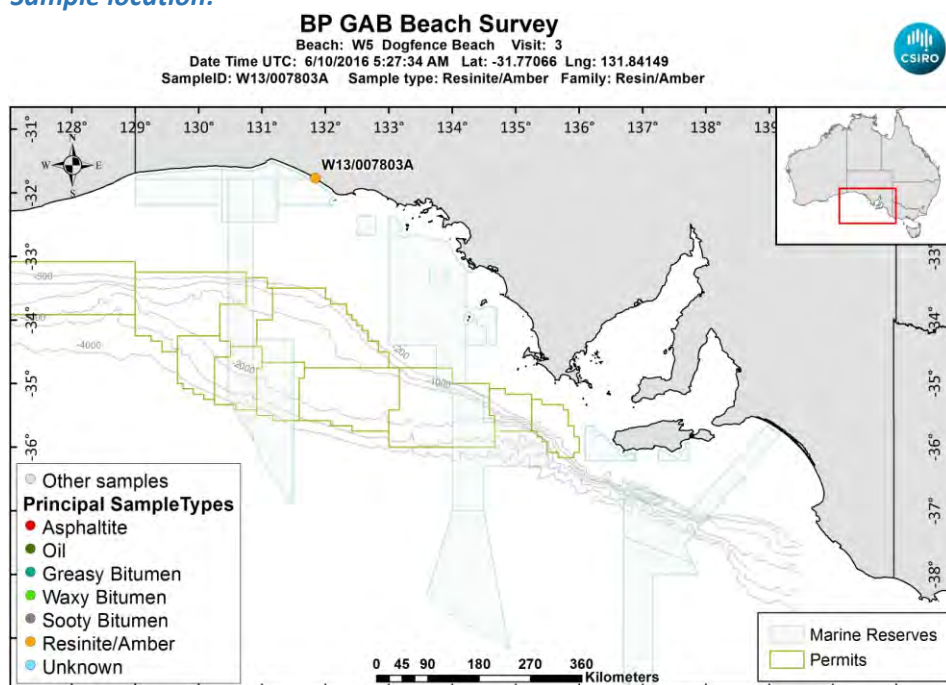
Size (cm): 3.6

Latitude (Y): -31.770660

Weight (gm): 4.71045

Longitude (X): 131.841492

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007803A_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007803_146A6483.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007803_AB_Photo02.jpg](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007803A DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007803B**

Beach W5: Dogfence Beach Visit: 3

Comments:

Part B subsample

Location: Shore Upper

Local Date Time: 6/10/2016 3:57:34 PM

Type: Resinite/Amber

Family: Resin/Amber

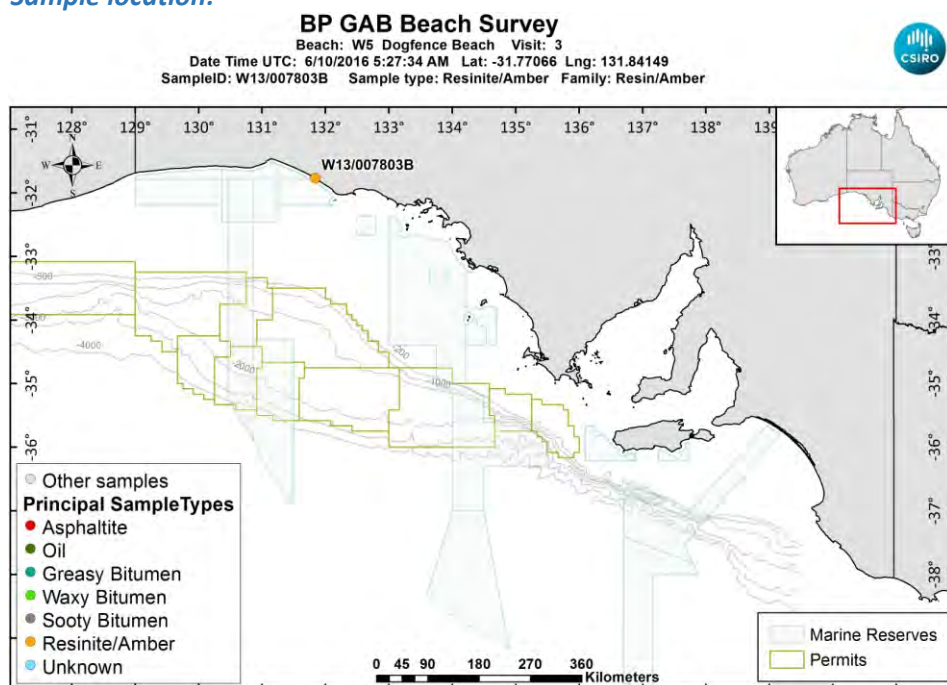
Size (cm): 3.4

Latitude (Y): -31.770660

Weight (gm): 5.70523

Longitude (X): 131.841492

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007803B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007803_AB_Photo02.jpg](#)

Sample ID : W13/007803B

Beach W5: Dogfence Beach Visit: 3

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Whole Oils GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: GCMS with Full Scan

Unique ID: W13/007803B_DISS_GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007804**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 3:59:23 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

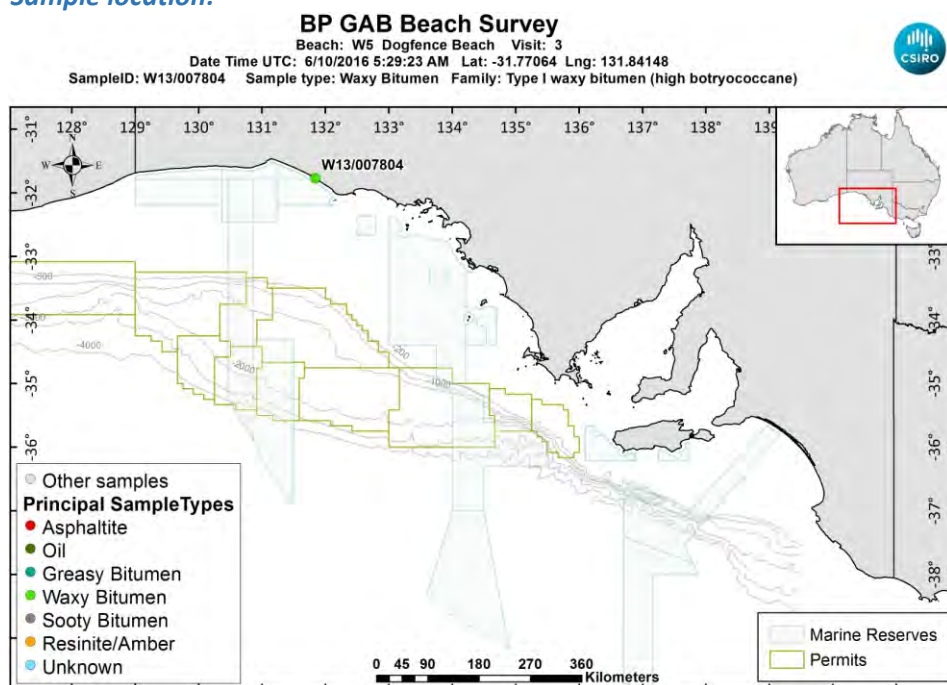
Size (cm): 2.4

Latitude (Y): -31.770645

Weight (gm): 3.32826

Longitude (X): 131.841485

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007804_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007804_146A6486.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007804_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007804_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			80.76	percent	Y
Inorg	Hydrogen			10.4457005964215	percent	Y
Inorg	Nitrogen			0.15	percent	Y
Inorg	Sulphur			2.34614576099545	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007804 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007804_bulk_WholeOil.jpg](#)

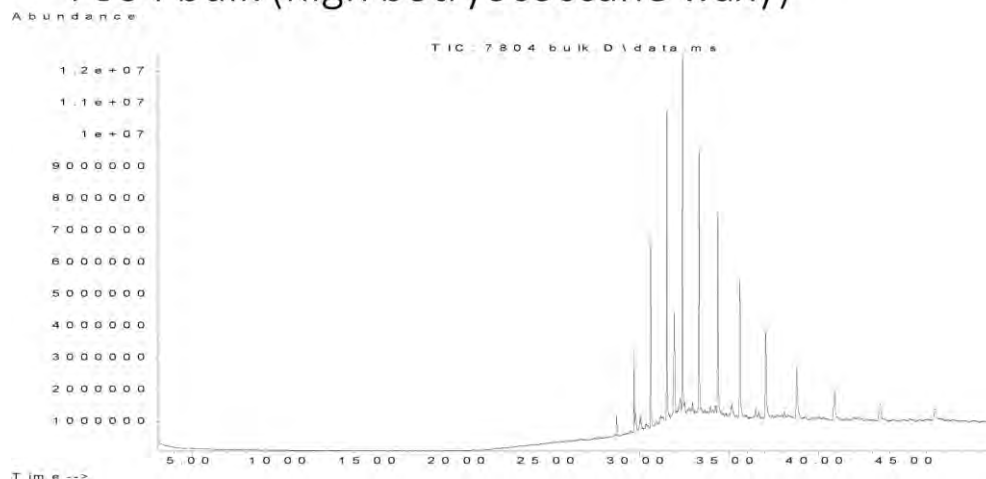
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7804 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	24556851			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060	549895			Z
Aliph	nC25	28.7100	2942152			Z
Aliph	nC26	29.6680	10443219			Z
Aliph	nC27	30.6080	30222702			Z
Aliph	nC28	31.5080	43227243			Z
Aliph	nC29	32.3700	50623614			Z
Aliph	nC30	33.2910	47159509			Z
Aliph	nC31	34.3470	42835770			Z
Aliph	nC32	35.5720	32410361			Z
Aliph	nC33	37.0130	23598769			Z
Aliph	nC34	38.7280	15816071			Z
Aliph	nC35	40.8080	11595955			Z
Aliph	nC36	43.3510	8195474			Z
Aliph	nC37	46.4710	7032229			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007805**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 4:00:34 PM

Type: Resinite/Amber

Family: Resin/Amber

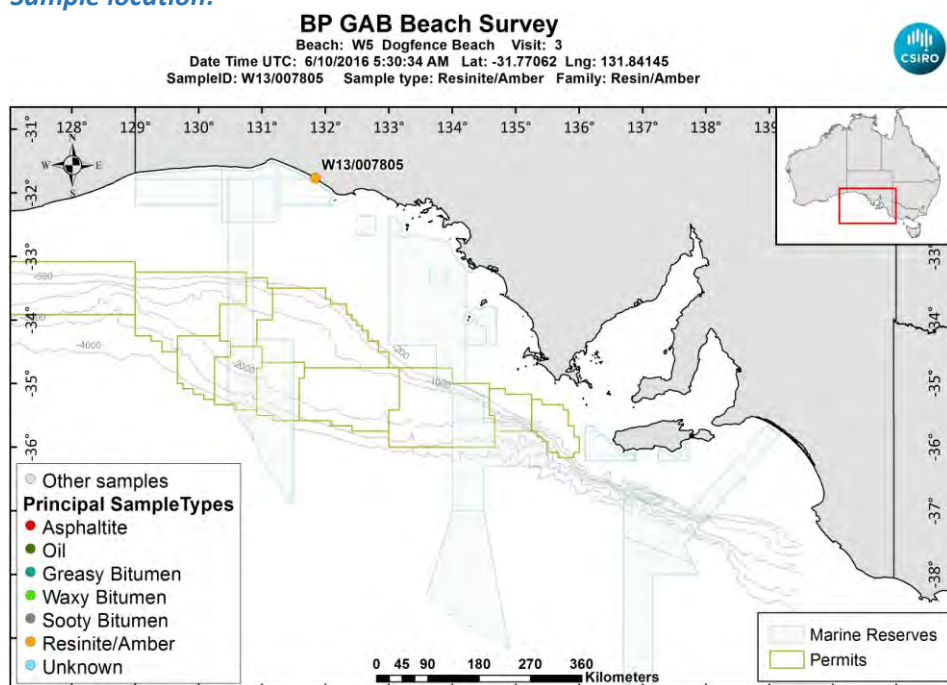
Size (cm): 6.5

Latitude (Y): -31.770625

Weight (gm): 20.07804

Longitude (X): 131.841447

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007805_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007805_146A6488.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007805_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: GCMS with Full Scan

Unique ID: W13/007805 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007806**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 4:02:11 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

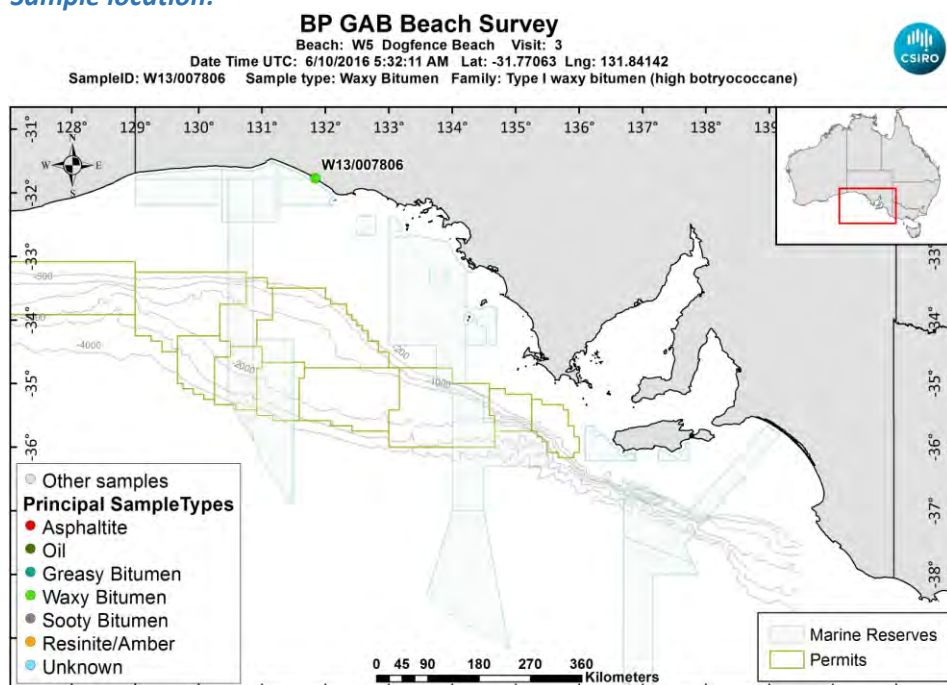
Size (cm): 2.4

Latitude (Y): -31.770632

Weight (gm): 2.63484

Longitude (X): 131.841417

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007806_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007806_146A6490.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007806_Photo03.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: **W13/007806_SPE_ELEM-AN/01**

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			87.04	percent	Y
Inorg	Hydrogen		10.0779165805169		percent	Y
Inorg	Nitrogen		0.25		percent	Y
Inorg	Sulphur		2.2091257948727		percent	Y

Results for: GCMS with Full Scan

Unique ID: **W13/007806 DISS GCMS-Scan/03**

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007806_bulk_WholeOil.jpg](#)

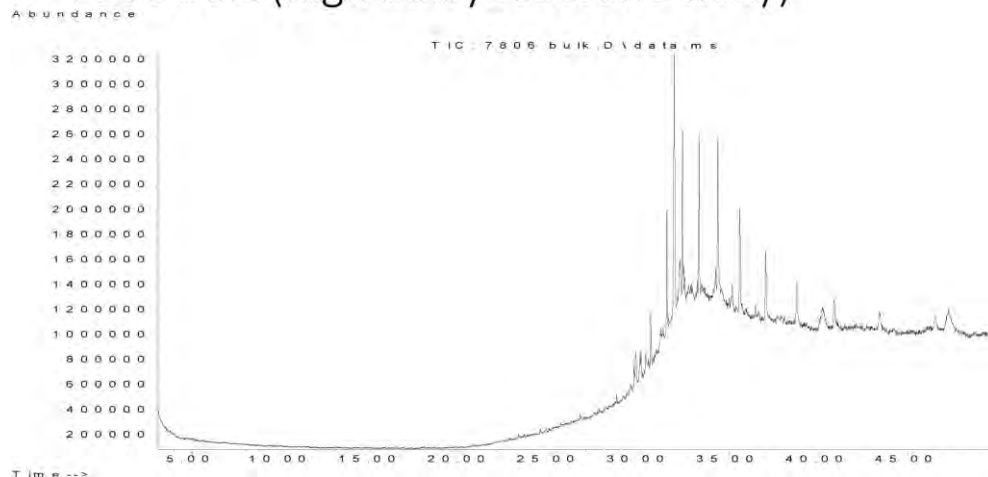
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7806 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	16129747			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680	572321			Z
Aliph	nC27	30.6080	2311583			Z
Aliph	nC28	31.5080	4691759			Z
Aliph	nC29	32.3700	6140251			Z
Aliph	nC30	33.2910	7142057			Z
Aliph	nC31	34.3470	8585891			Z
Aliph	nC32	35.5720	5945522			Z
Aliph	nC33	37.0130	4169333			Z
Aliph	nC34	38.7280	3340609			Z
Aliph	nC35	40.8080	2333231			Z
Aliph	nC36	43.3510	2358225			Z
Aliph	nC37	46.4710	1965190			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007807**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 4:03:33 PM

Type: Asphaltite

Family: Unknown

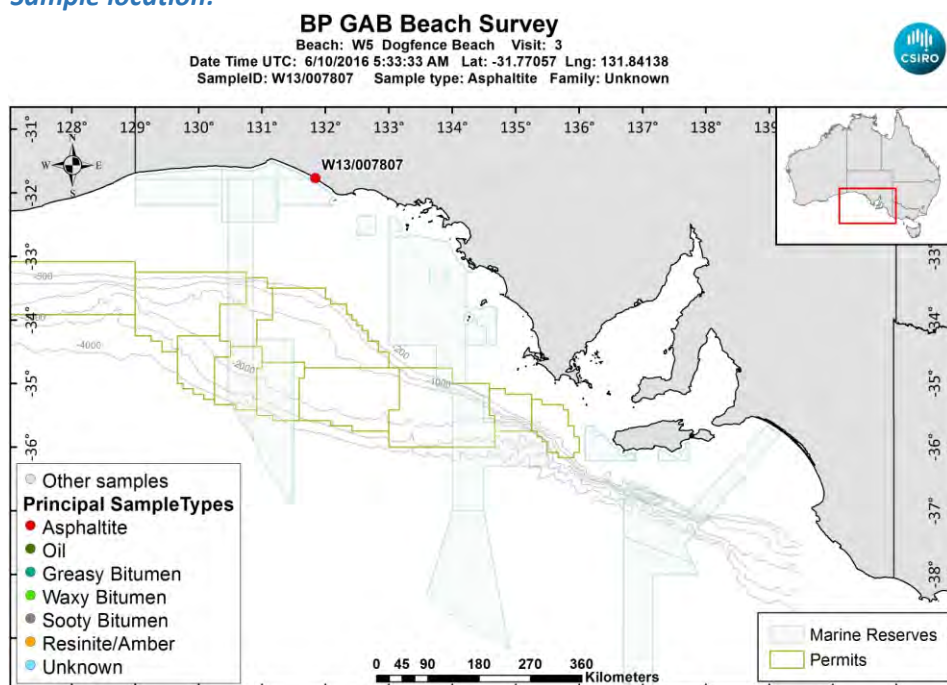
Size (cm): 5.8

Latitude (Y): -31.770567

Weight (gm): 38.92271

Longitude (X): 131.841383

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007807_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007807_146A6492.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007807_Photo05.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 2
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007807 DISS GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: External Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			26.4248546066728	ratio	Y
BiomRatio	% C27 abb 20(R+S)			28.3754816062606	ratio	Y
BiomRatio	% C28 aaa 20R			28.5266809509234	ratio	Y
BiomRatio	% C28 abb 20(R+S)			26.5539416669315	ratio	Y
BiomRatio	% C29 aaa 20R			45.0484644424038	ratio	Y
BiomRatio	% C29 abb 20(R+S)			45.0705767268079	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			8.39637597889002E-02	ratio	Y
BiomRatio	25-Nor/C30H			3.56747136763663E-02	ratio	Y
BiomRatio	C19t/C23t			0.178925214993287	ratio	Y
BiomRatio	C22t/C21t			0.1330840824119	ratio	Y
BiomRatio	C22t/C24t			0.108151787445859	ratio	Y
BiomRatio	C23t/C30H			4.73423910149265E-02	ratio	Y
BiomRatio	C24t/C23t			0.561304836895388	ratio	Y
BiomRatio	C24Tet/C23t			0.598497768424108	ratio	Y
BiomRatio	C24Tet/C26t			0.758031159520199	ratio	Y
BiomRatio	C24Tet/C30H			0.028334315374295	ratio	Y
BiomRatio	C26t/C25t			1.21674215735615	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.422316855613742	ratio	Y
BiomRatio	C27 Dia/Ster			0.36387923648134	ratio	Y
BiomRatio	C28BNH/C30H			2.92464968623362E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.5883634100809	ratio	Y
BiomRatio	C29H/C30H			0.602716617335571	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.210327186627144	ratio	Y
BiomRatio	C30DiaH/C30H			6.75289158095997E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			9.08533144473775E-02	ratio	Y
BiomRatio	C35HS/C34HS			0.935037768739105	ratio	Y
BiomRatio	Gam/C30H			5.65793022412866E-02	ratio	Y
BiomRatio	Gam/C31HR			0.250595369433391	ratio	Y
BiomRatio	Ole/C30H			5.32552510560519E-02	ratio	Y
BiomRatio	Sterane/hopane			0.202180902681388	ratio	Y
BiomRatio	Steranes/Terpanes			0.184920536197738	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			9.33393707294556E-02	ratio	Y

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007807 DISS GC-MS/02

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 2

for Analysis: Biomarkers

Preparation: Dissolved in solvent

Analysis Date: 18/07/2017

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: Internal Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Rspnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			29.8932890215628	ratio	Y
BiomRatio	% C27 abb 20(R+S)			30.7941267511618	ratio	Y
BiomRatio	% C28 aaa 20R			28.3693366469126	ratio	Y
BiomRatio	% C28 abb 20(R+S)			26.7536886790665	ratio	Y
BiomRatio	% C29 aaa 20R			41.7373743315246	ratio	Y
BiomRatio	% C29 abb 20(R+S)			42.4521845697717	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			9.40844322897854E-02	ratio	Y
BiomRatio	25-Nor/C30H			5.34288046689719E-02	ratio	Y
BiomRatio	C19t/C23t			0.200696587333109	ratio	Y
BiomRatio	C22t/C21t			7.28567934450287E-02	ratio	Y
BiomRatio	C22t/C24t			6.59325457211632E-02	ratio	Y
BiomRatio	C23t/C30H			7.45318561007573E-02	ratio	Y
BiomRatio	C24t/C23t			0.552121841679142	ratio	Y
BiomRatio	C24Tet/C23t			0.364959824020042	ratio	Y
BiomRatio	C24Tet/C26t			0.430662460567823	ratio	Y
BiomRatio	C24Tet/C30H			2.72011330864195E-02	ratio	Y
BiomRatio	C26t/C25t			1.37236226900527	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.412334133417871	ratio	Y
BiomRatio	C27 Dia/Ster			0.372639602997979	ratio	Y
BiomRatio	C28BNH/C30H			0.033600930879679	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.37858056222263	ratio	Y
BiomRatio	C29H/C30H			0.561238698453505	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.203715041248621	ratio	Y
BiomRatio	C30DiaH/C30H			7.87923156884422E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			0.112659813647171	ratio	Y
BiomRatio	C35HS/C34HS			0.873822835596337	ratio	Y
BiomRatio	Gam/C30H			3.88359905226976E-02	ratio	Y
BiomRatio	Gam/C31HR			0.179156687255767	ratio	Y
BiomRatio	Ole/C30H			6.86945027319542E-02	ratio	Y
BiomRatio	Sterane/hopane			0.25041004318355	ratio	Y
BiomRatio	Steranes/Terpanes			0.219500132896003	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			0.140819551586294	ratio	Y

Results for: Elemental Analyser

Unique ID: W13/007807_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

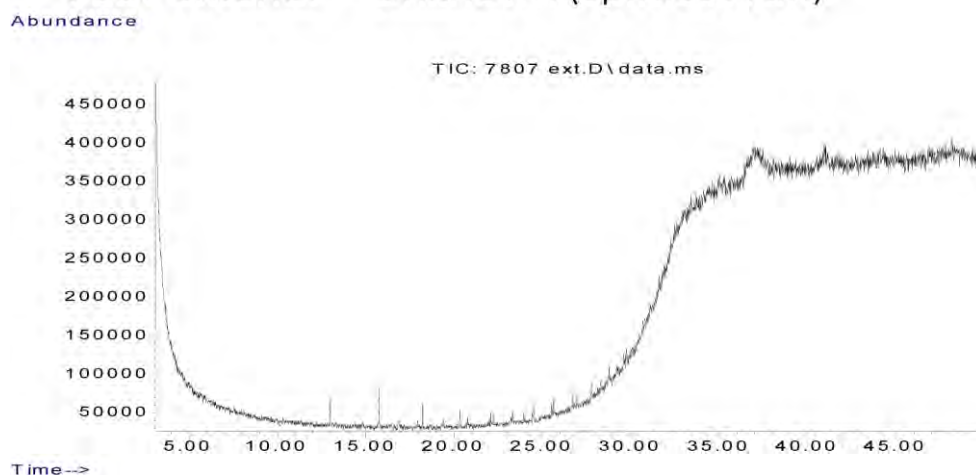
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			85.89	percent	Y
Inorg	Hydrogen			8.86484675944334	percent	Y
Inorg	Nitrogen			0.49	percent	Y
Inorg	Sulphur			2.95607063488157	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007807_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007807_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior (splitless)

Results for: GCMS with Full Scan

7807 exterior – Unknown (splitless run)



Data Sheet:

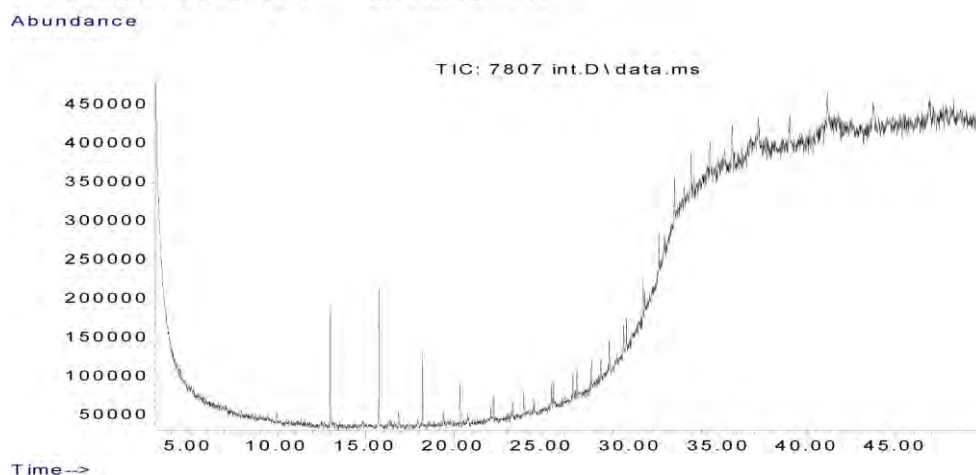
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007807 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007807_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior (splitless)

Results for: GCMS with Full Scan

7807 interior – Unknown



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007808**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Shore Upper

Local Date Time: 6/10/2016 4:06:09 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

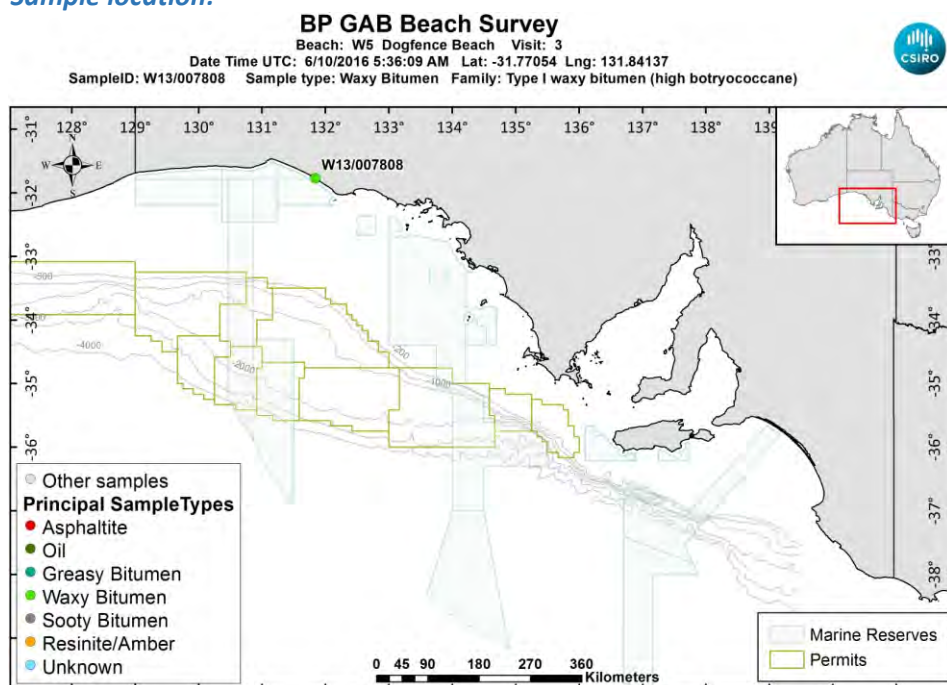
Size (cm): 2.3

Latitude (Y): -31.770542

Weight (gm): 1.2795

Longitude (X): 131.841368

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007808_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007808_146A6494.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007808_Photo02.JPG](#)

Analyses Requested

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:

Results for: Elemental Analyser

Unique ID: W13/007808_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment:

Data Sheet:

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			86.77	percent	Y
Inorg	Hydrogen			11.1837744333996	percent	Y
Inorg	Nitrogen			0.33	percent	Y
Inorg	Sulphur			3.10576841293377	percent	Y

Results for: GCMS with Full Scan

Unique ID: W13/007808 DISS GCMS-Scan/03

Instrument / Type: GCMS with Full Scan Run: 3

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [LinkedFiles\GAB_BCH1\GCMS\W13_007808_bulk_WholeOil.jpg](#)

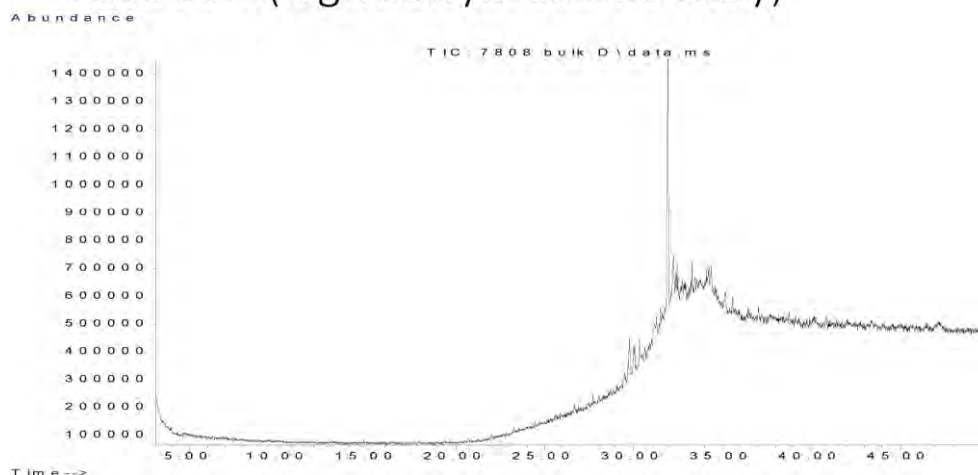
Preparation: Dissolved in solvent

Method ID/s:

Sample Volume: Volume Units: Extract Volume: Dilution Factor:
Comment: Bulk

Results for: GCMS with Full Scan

7808 bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	7526009			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080	311183			Z
Aliph	nC29	32.3700	206144			Z
Aliph	nC30	33.2910	297951			Z
Aliph	nC31	34.3470	395070			Z
Aliph	nC32	35.5720	419010			Z
Aliph	nC33	37.0130	328174			Z
Aliph	nC34	38.7280	417383			Z
Aliph	nC35	40.8080	212509			Z
Aliph	nC36	43.3510	312984			Z
Aliph	nC37	46.4710	86056			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007809**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 4:07:19 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

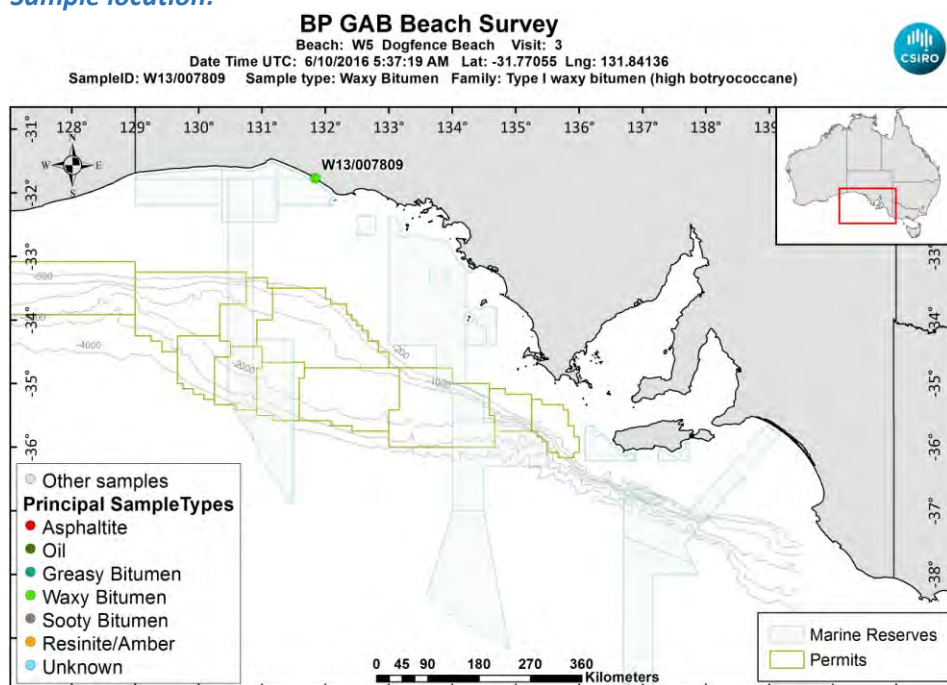
Size (cm): 3

Latitude (Y): -31.770550

Weight (gm): 7.85821

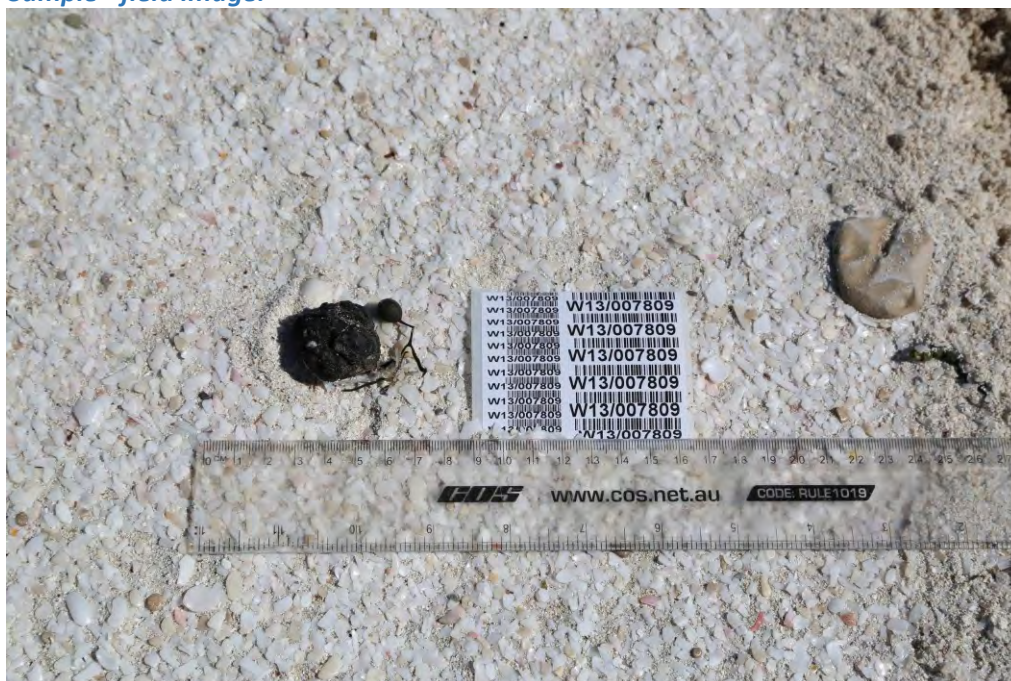
Longitude (X): 131.841357

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007809_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007809_146A6495.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007809_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007809_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

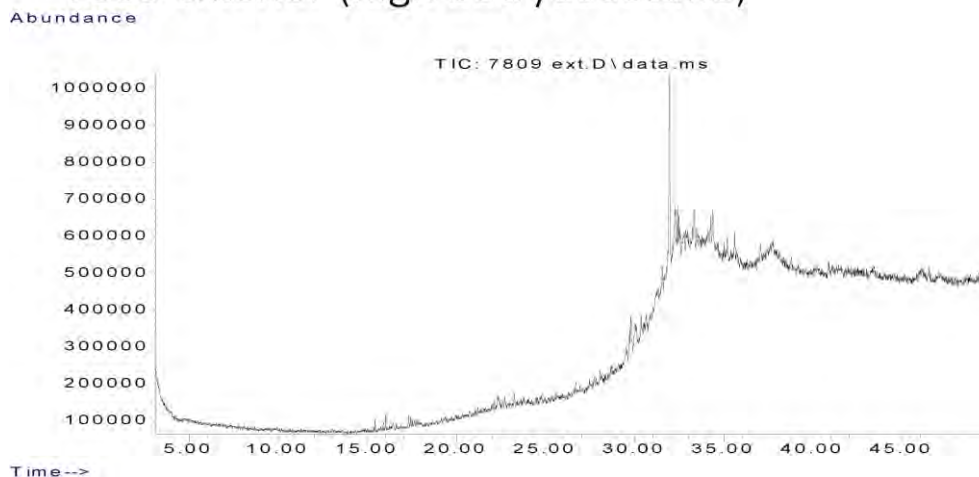
(default units ppb)					
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units: Qualifier:
Inorg	Carbon			87.34	percent Y
Inorg	Hydrogen			10.0800942345924	percent Y
Inorg	Nitrogen			0.28	percent Y
Inorg	Sulphur			2.48807480383262	percent Y

Results for: GCMS with Full Scan**Unique ID:** W13/007809_DISS_GCMS-Scan/01

Results for: GCMS with Full Scan**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007809_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior

Results for: GCMS with Full Scan

7809 exterior (high botryococcane)



Data Sheet:

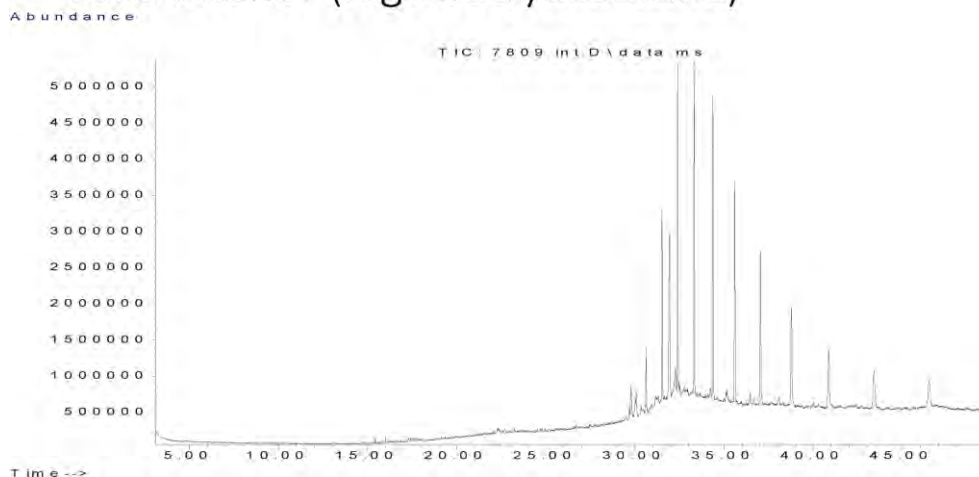
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	4085080			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680	171700			Z
Aliph	nC27	30.6080	188785			Z
Aliph	nC28	31.5080	232742			Z
Aliph	nC29	32.3700	365594			Z
Aliph	nC30	33.2910	390935			Z
Aliph	nC31	34.3470	516076			Z
Aliph	nC32	35.5720	425679			Z
Aliph	nC33	37.0130	494652			Z
Aliph	nC34	38.7280	413736			Z
Aliph	nC35	40.8080	366422			Z
Aliph	nC36	43.3510	253147			Z
Aliph	nC37	46.4710	122180			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007809 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007809_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior

Results for: GCMS with Full Scan

7809 interior (high botryococcane)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	18863279			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680	422926			Z
Aliph	nC27	30.6080	3937931			Z
Aliph	nC28	31.5080	11921097			Z
Aliph	nC29	32.3700	20925444			Z
Aliph	nC30	33.2910	24597589			Z
Aliph	nC31	34.3470	25909053			Z
Aliph	nC32	35.5720	21956985			Z
Aliph	nC33	37.0130	18054939			Z
Aliph	nC34	38.7280	13230048			Z
Aliph	nC35	40.8080	9987960			Z
Aliph	nC36	43.3510	7562906			Z
Aliph	nC37	46.4710	6464350			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007810**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 4:10:16 PM

Type: Resinite/Amber

Family: Resin/Amber

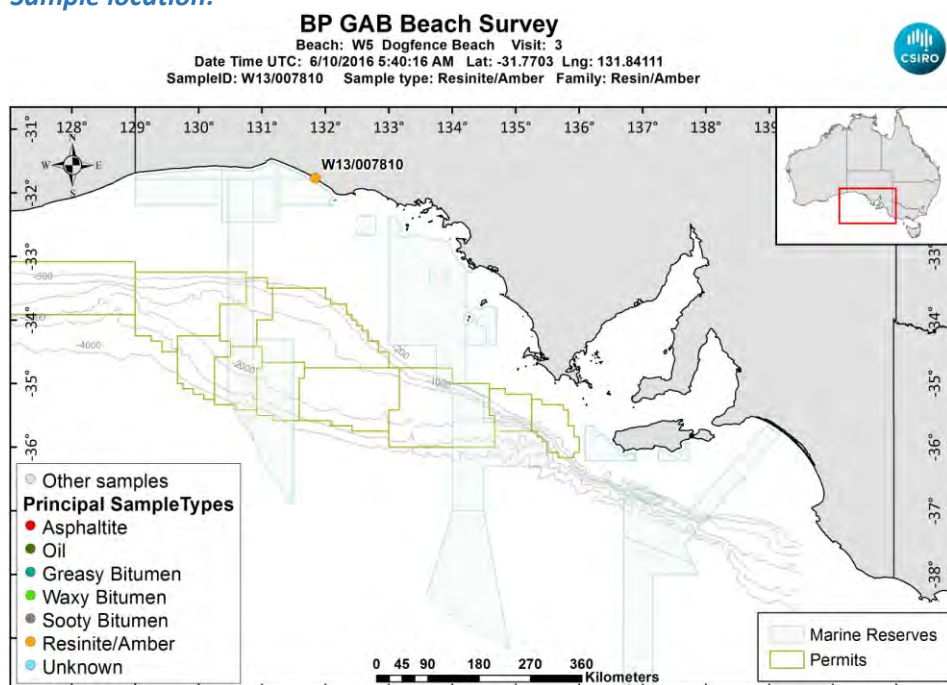
Size (cm): 5.9

Latitude (Y): -31.770298

Weight (gm): 41.57909

Longitude (X): 131.841113

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007810_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007810_146A6497.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007810_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:**Results for: GCMS with Full Scan**

Unique ID: W13/007810 DISS GCMS-Scan/01

Instrument / Type: GCMS with Full Scan Run: 1

for Analysis: Whole Oils

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: GCMS with Full Scan

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720				U
Aliph	nC33	37.0130				U
Aliph	nC34	38.7280				U
Aliph	nC35	40.8080				U
Aliph	nC36	43.3510				U
Aliph	nC37	46.4710				U
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Qualifier codes:

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007811**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 4:12:57 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

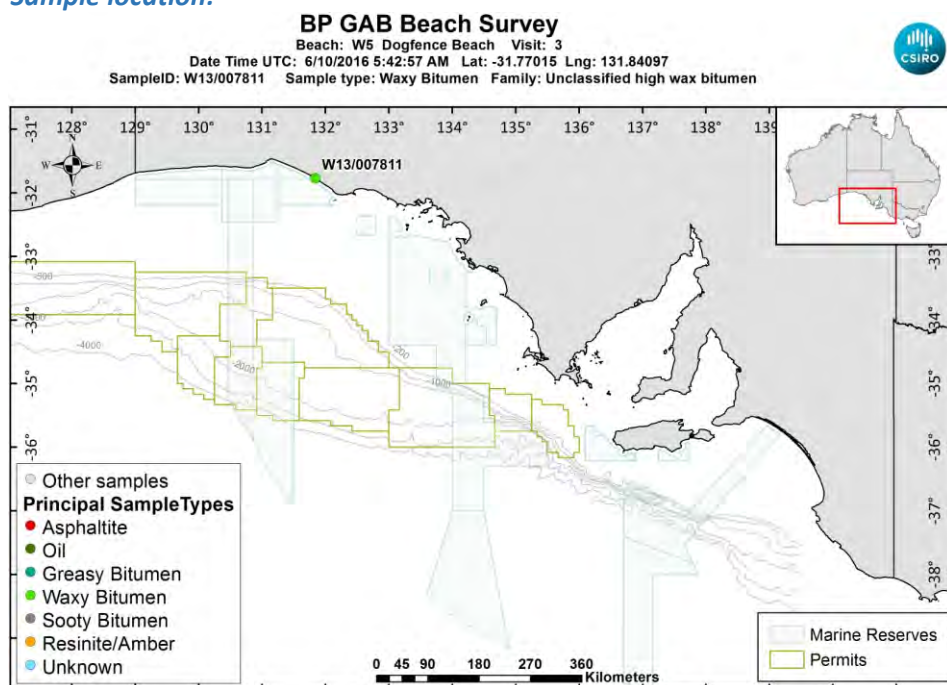
Size (cm): 2.5

Latitude (Y): -31.770147

Weight (gm): 1.92967

Longitude (X): 131.840973

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007811_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007811_146A6499.JPG](#)

Sample - laboratory image:

[LinkedFiles\GAB_BCH1\Samples\W13_007811_Photo02.JPG](#)**Analyses Requested**

Split:	Analysis:	Sent:
1	Bitumen Determination	YES

Analyses Completed:

Analysis:	Instrument/Type:
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007811_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment:			

Data Sheet:

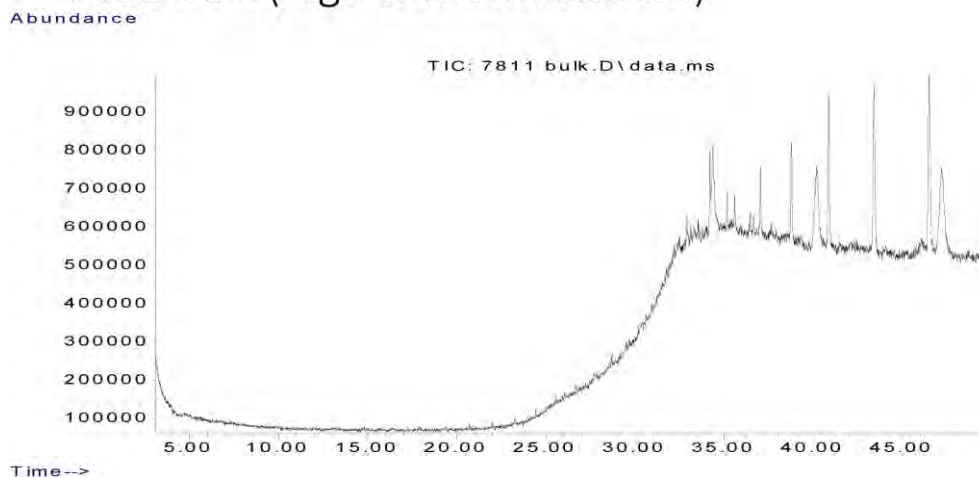
Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
Inorg	Carbon			84.59	percent	Y
Inorg	Hydrogen			10.5025087475149	percent	Y
Inorg	Nitrogen			0.13	percent	Y
Inorg	Sulphur			3.30433228136146	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007811 DISS GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007811_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume:	Volume Units:	Extract Volume:	Dilution Factor:
Comment: Bulk			

Results for: GCMS with Full Scan

7811 bulk (high wax unclassified)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080				U
Aliph	nC29	32.3700				U
Aliph	nC30	33.2910				U
Aliph	nC31	34.3470				U
Aliph	nC32	35.5720	601297			Z
Aliph	nC33	37.0130	1351410			Z
Aliph	nC34	38.7280	2847628			Z
Aliph	nC35	40.8080	4710700			Z
Aliph	nC36	43.3510	6534838			Z
Aliph	nC37	46.4710	7744871			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007812**

Beach W5: Dogfence Beach Visit: 3

Comments:

Location: Upper Intertidal

Local Date Time: 6/10/2016 4:17:10 PM

Type: Waxy Bitumen

Family: Unclassified high wax bitumen

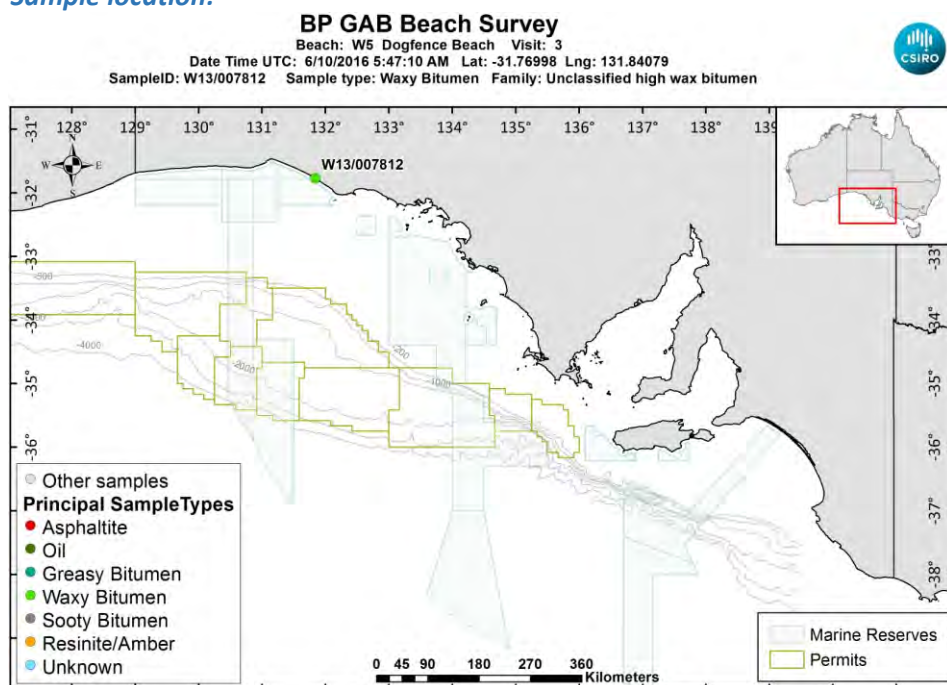
Size (cm): 2.4

Latitude (Y): -31.769975

Weight (gm): 3.89706

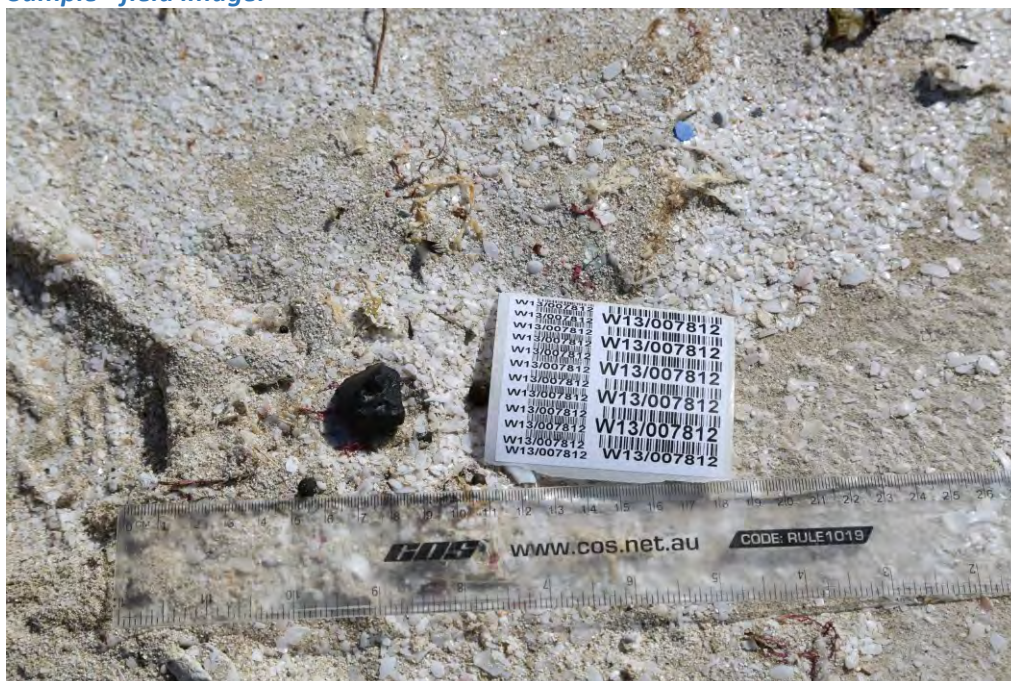
Longitude (X): 131.840793

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007812_Location.jpg](#)

Sample - field image:



[LinkedFiles\GAB_BCH1\Samples\W13_007812_146A6501.JPG](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007812_Photo02.JPG](#)

Analyses Requested

Split:	Analysis:	Sent:
1	Bitumen Determination	YES
4	Biomarkers	YES

Analyses Completed:

Analysis:	Instrument/Type:
Biomarkers	Gas Chromatography Mass Spectrometry Run: 2
Biomarkers	Gas Chromatography Mass Spectrometry Run: 1
Elemental CHNS	Elemental Analyser Run: 1
Whole Oils	GCMS with Full Scan Run: 2
Whole Oils	GCMS with Full Scan Run: 1

Sample Analyses Completed:

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007812 DISS GC-MS/01

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 1

for Analysis: Biomarkers

Analysis Date: 18/07/2017

Linked Image: [None available](#)

Preparation: Dissolved in solvent

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: External Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respnse:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			26.8033021066719	ratio	Y
BiomRatio	% C27 abb 20(R+S)			30.3764210264864	ratio	Y
BiomRatio	% C28 aaa 20R			24.6912599001978	ratio	Y
BiomRatio	% C28 abb 20(R+S)			22.5251071864136	ratio	Y
BiomRatio	% C29 aaa 20R			48.5054379931303	ratio	Y
BiomRatio	% C29 abb 20(R+S)			47.0984717871	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			1.50613620755637E-02	ratio	Y
BiomRatio	25-Nor/C30H			0.03053914796201	ratio	Y
BiomRatio	C19t/C23t			0.150638508906063	ratio	Y
BiomRatio	C22t/C21t			0.354665606677929	ratio	Y
BiomRatio	C22t/C24t			0.192731396479101	ratio	Y
BiomRatio	C23t/C30H			8.07487202077034E-03	ratio	Y
BiomRatio	C24t/C23t			0.765301483654999	ratio	Y
BiomRatio	C24Tet/C23t			2.34698516345001	ratio	Y
BiomRatio	C24Tet/C26t			1.95416537627749	ratio	Y
BiomRatio	C24Tet/C30H			1.89516048295056E-02	ratio	Y
BiomRatio	C26t/C25t			1.45976491862568	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.495269669474429	ratio	Y
BiomRatio	C27 Dia/Ster			0.48703270687543	ratio	Y
BiomRatio	C28BNH/C30H			5.52866934972535E-02	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.55049443599801	ratio	Y
BiomRatio	C29H/C30H			0.520229061129688	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.213871771338665	ratio	Y
BiomRatio	C30DiaH/C30H			6.21635330943943E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			0.106363677910915	ratio	Y
BiomRatio	C35HS/C34HS			1.03084586168233	ratio	Y
BiomRatio	Gam/C30H			6.21034646163293E-02	ratio	Y
BiomRatio	Gam/C31HR			0.249074492945267	ratio	Y
BiomRatio	Ole/C30H			7.99204426379406E-02	ratio	Y
BiomRatio	Sterane/hopane			0.162591007449148	ratio	Y
BiomRatio	Steranes/Terpanes			0.157110448990116	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			3.48834752510779E-02	ratio	Y

Results for: Gas Chromatography Mass Spectrometry

Unique ID: W13/007812 DISS GC-MS/02

Instrument / Type: Gas Chromatography Mass Spectrometry Run: 2

for Analysis: Biomarkers

Preparation: Dissolved in solvent

Analysis Date: 18/07/2017

Method ID/s:

Linked Image: [None available](#)

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment: External duplicate Ratios only

Results for: Gas Chromatography Mass Spectrometry

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retention Time:	Target Response:	Value:	units:	Qualifier:
BiomRatio	% C27 aaa 20R			23.1319510480837	ratio	Y
BiomRatio	% C27 abb 20(R+S)			28.5957714699869	ratio	Y
BiomRatio	% C28 aaa 20R			29.5309463761525	ratio	Y
BiomRatio	% C28 abb 20(R+S)			23.5979801666971	ratio	Y
BiomRatio	% C29 aaa 20R			47.3371025757638	ratio	Y
BiomRatio	% C29 abb 20(R+S)			47.8062483633161	ratio	Y
BiomRatio	(C21+C22)/(C27+C28+C29)			1.61720039979881E-02	ratio	Y
BiomRatio	25-Nor/C30H			2.95703056279431E-02	ratio	Y
BiomRatio	C19t/C23t			0.188412529864614	ratio	Y
BiomRatio	C22t/C21t			0.33696788648245	ratio	Y
BiomRatio	C22t/C24t			0.194521886586382	ratio	Y
BiomRatio	C23t/C30H			9.6628167739351E-03	ratio	Y
BiomRatio	C24t/C23t			0.769688523139545	ratio	Y
BiomRatio	C24Tet/C23t			2.08994779223078	ratio	Y
BiomRatio	C24Tet/C26t			2.02982188513847	ratio	Y
BiomRatio	C24Tet/C30H			2.01947825834162E-02	ratio	Y
BiomRatio	C26t/C25t			1.18738200928619	ratio	Y
BiomRatio	C27 Dia/(Dia+Reg)			0.513143980477223	ratio	Y
BiomRatio	C27 Dia/Ster			0.488077722084745	ratio	Y
BiomRatio	C28BNH/C30H			0.052598052345174	ratio	Y
BiomRatio	C29/C27 abb Sterane Ratio			1.67179432153079	ratio	Y
BiomRatio	C29H/C30H			0.529425910602485	ratio	Y
BiomRatio	C29Ts/(C29Ts+C29H)			0.20940367104261	ratio	Y
BiomRatio	C30DiaH/C30H			5.97609434007839E-02	ratio	Y
BiomRatio	C30Ts/C30H			0	ratio	U
BiomRatio	C35 Homohopane Index			0.110566090922435	ratio	Y
BiomRatio	C35HS/C34HS			1.03308198882712	ratio	Y
BiomRatio	Gam/C30H			6.68475220595198E-02	ratio	Y
BiomRatio	Gam/C31HR			0.262611740698597	ratio	Y
BiomRatio	Ole/C30H			8.39883124464664E-02	ratio	Y
BiomRatio	Sterane/hopane			0.206378591417798	ratio	Y
BiomRatio	Steranes/Terpanes			0.199012057752982	ratio	Y
BiomRatio	Tricyclic/Pentacyclic Terpanes			3.70155142758233E-02	ratio	Y

Results for: Elemental Analyser

Unique ID: W13/007812_SPE_ELEM-AN/01

Instrument / Type: Elemental Analyser Run: 1

for Analysis: Elemental CHNS

Analysis Date: 30/10/2017

Linked Image: [None available](#)

Preparation: Solid Phase Extract

Method ID/s:

Sample Volume:

Volume Units:

Extract Volume:

Dilution Factor:

Comment:

Results for: Elemental Analyser**Data Sheet:**

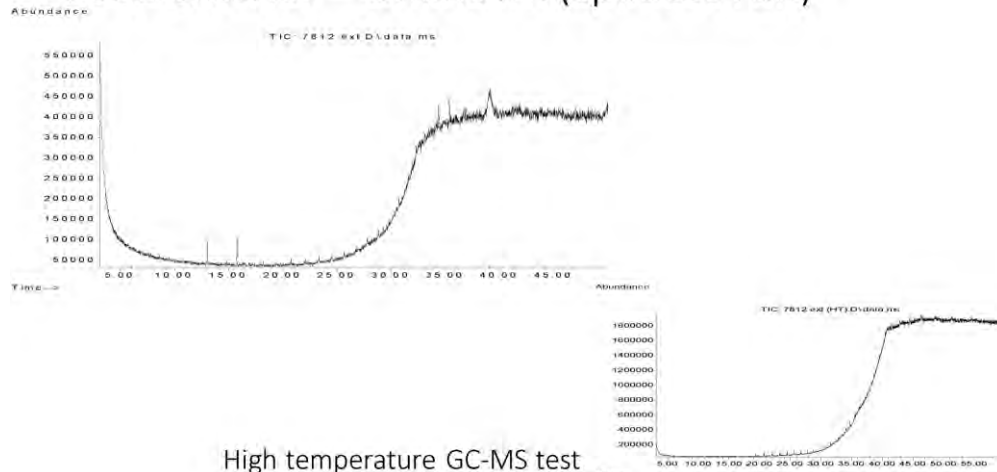
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respns:	Value:	units:	Qualifier:
Inorg	Carbon			86.93	percent	Y
Inorg	Hydrogen			8.89573431411531	percent	Y
Inorg	Nitrogen			0.3	percent	Y
Inorg	Sulphur			4.24058686277015	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007812_DISS_GCMS-Scan/01**Instrument / Type:** GCMS with Full Scan Run: 1**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007812_ext_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Exterior (splitless)

Results for: GCMS with Full Scan

7812 exterior – Unknown (splitless run)



High temperature GC-MS test

Data Sheet:

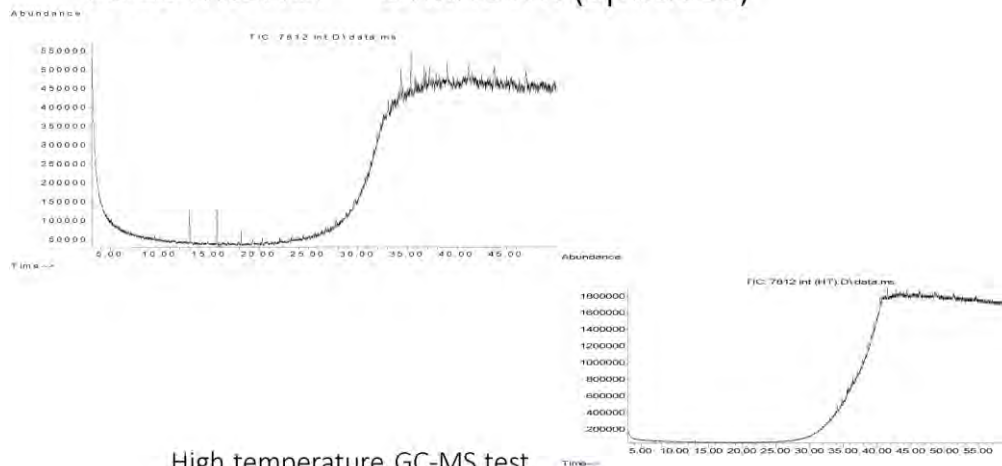
(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700				U
Aliph	nC32	35.7230				U
Aliph	nC33	37.1970				U
Aliph	nC34	38.9660				U
Aliph	nC35	41.0780				U
Aliph	nC36	43.6950				U
Aliph	nC37	46.8640				U
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Results for: GCMS with Full Scan****Unique ID:** W13/007812 DISS GCMS-Scan/02**Instrument / Type:** GCMS with Full Scan Run: 2**for Analysis:** Whole Oils**Preparation:** Dissolved in solvent**Analysis Date:** 30/10/2017**Method ID/s:****Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007812_int_WholeOil.jpg](#)**Sample Volume:****Volume Units:****Extract Volume:****Dilution Factor:****Comment:** Interior (splitless)

Results for: GCMS with Full Scan

7812 interior – Unknown (splitless)



High temperature GC-MS test

Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane					U
Aliph	nC10					U
Aliph	nC11					U
Aliph	nC12					U
Aliph	nC13					U
Aliph	nC14					U
Aliph	nC15					U
Aliph	nC16	17.9470				U
Aliph	nC17	19.3870				U
Aliph	nC18	20.7560				U
Aliph	nC19	22.0580				U
Aliph	nC20	23.3040				U
Aliph	nC21	24.4890				U
Aliph	nC22	25.6290				U
Aliph	nC23	26.7230				U
Aliph	nC24	27.7690				U
Aliph	nC25	28.7780				U
Aliph	nC26	29.7510				U
Aliph	nC27	30.6850				U
Aliph	nC28	31.5900				U
Aliph	nC29	32.4650				U
Aliph	nC30	33.4020				U
Aliph	nC31	34.4700	234827			Z
Aliph	nC32	35.7230	281069			Z
Aliph	nC33	37.1970	429105			Z
Aliph	nC34	38.9660	657229			Z
Aliph	nC35	41.0780	746513			Z
Aliph	nC36	43.6950	942534			Z
Aliph	nC37	46.8640	911432			Z
Aliph	nC8					U
Aliph	nC9					U
Aliph	Norpristane	18.6080				U
Aliph	Phytane	20.7570				U
Aliph	Pristane	19.4110				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007813A**

Beach W5: Dogfence Beach Visit: 3

Comments:

six pieces collected from multiple locations. No photograph. Part A

Location: Shore Upper

Local Date Time: 6/10/2016 4:18:18 PM

Type: Waxy Bitumen

Family: Type III waxy bitumen (no botryococcane, low

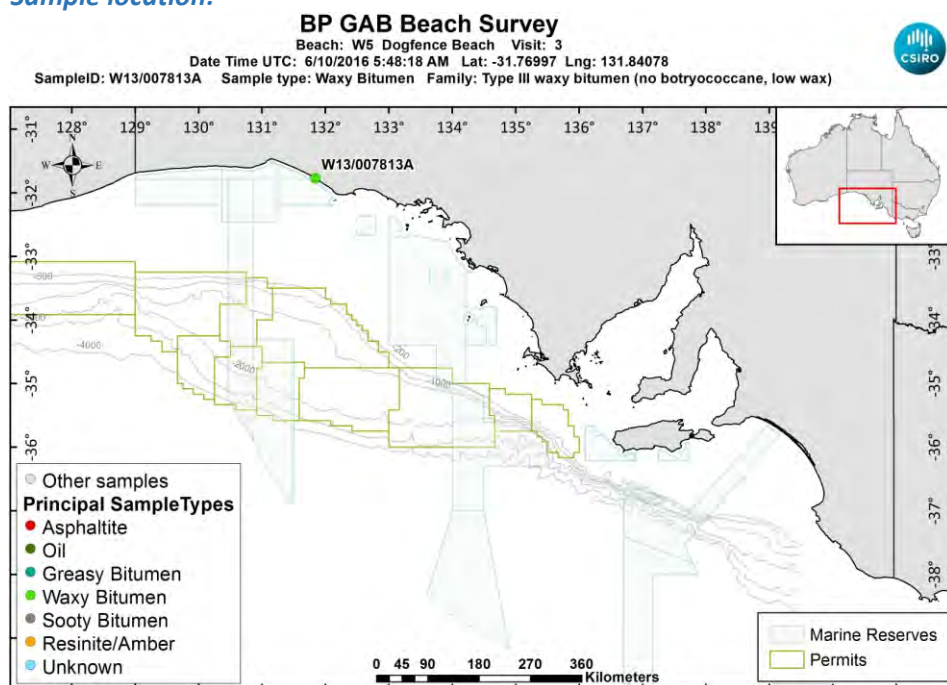
Size (cm): 3

Latitude (Y): -31.769970

Weight (gm): 5.6512

Longitude (X): 131.840775

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007813A_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007813_ABCDEF_Photo02.jpg](#)

Sample ID : W13/007813A**Beach W5: Dogfence Beach Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination YES

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007813A_SPE_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

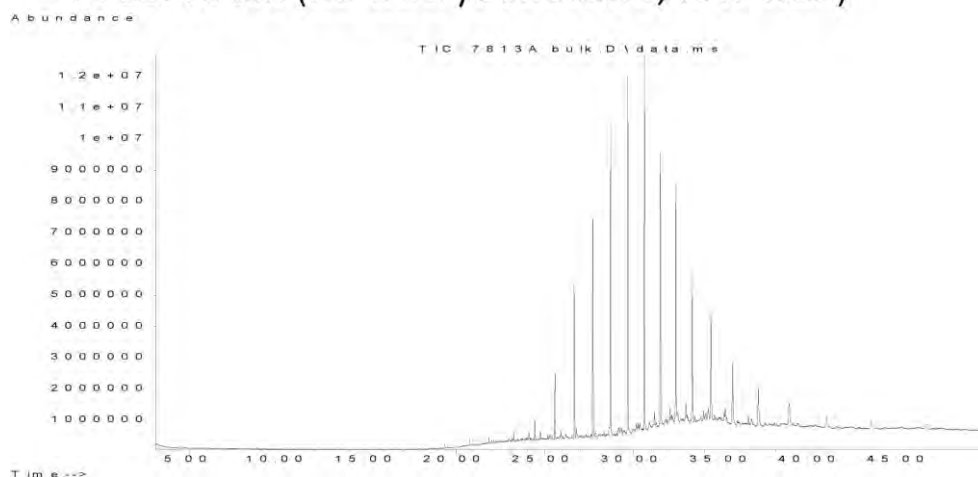
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			83.15	percent	Y
Inorg	Hydrogen			8.21319999999997	percent	Y
Inorg	Nitrogen			0.15	percent	Y
Inorg	Sulphur			1.47949725647852	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007813A DISS GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007813A_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7813A bulk (no botryococcane, low wax)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240				U
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500	1049502			Z
Aliph	nC18	20.7170	1459078			Z
Aliph	nC19	22.0170	1055952			Z
Aliph	nC20	23.2570	1471803			Z
Aliph	nC21	24.4410	3025305			Z
Aliph	nC22	25.5760	9689549			Z
Aliph	nC23	26.6620	21716774			Z
Aliph	nC24	27.7060	34722590			Z
Aliph	nC25	28.7100	46509874			Z
Aliph	nC26	29.6680	48959240			Z
Aliph	nC27	30.6080	50439041			Z
Aliph	nC28	31.5080	40900921			Z
Aliph	nC29	32.3700	36003026			Z
Aliph	nC30	33.2910	25762975			Z
Aliph	nC31	34.3470	21857022			Z
Aliph	nC32	35.5720	14694514			Z
Aliph	nC33	37.0130	10398885			Z
Aliph	nC34	38.7280	6926222			Z
Aliph	nC35	40.8080	4006975			Z
Aliph	nC36	43.3510	2694584			Z
Aliph	nC37	46.4710	2193549			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007813B**

Beach W5: Dogfence Beach Visit: 3

Comments:

Part B subsample

Location: Shore Upper

Local Date Time: 6/10/2016 4:18:18 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

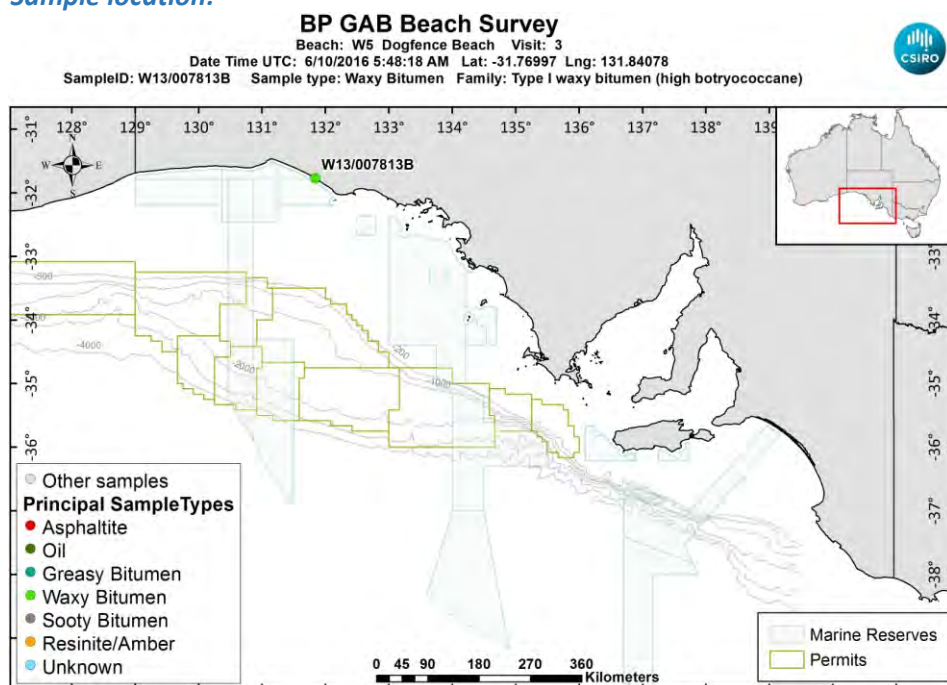
Size (cm): 2.5

Latitude (Y): -31.769970

Weight (gm): 1.98155

Longitude (X): 131.840775

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007813B_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007813_ABCDEF_Photo02.jpg](#)

Sample ID : W13/007813B**Beach W5: Dogfence Beach Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007813B_SPE_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

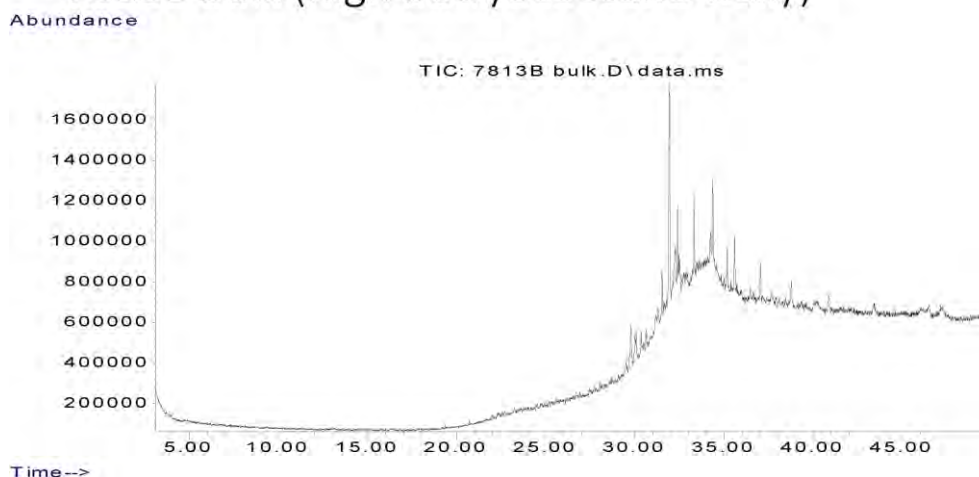
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.12	percent	Y
Inorg	Hydrogen			12.1799403578529	percent	Y
Inorg	Nitrogen			0.34	percent	Y
Inorg	Sulphur			2.2278081954723	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007813B_DISS_GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007813B_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7813B bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	9127615			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080	380471			Z
Aliph	nC28	31.5080	1035092			Z
Aliph	nC29	32.3700	1751912			Z
Aliph	nC30	33.2910	2159831			Z
Aliph	nC31	34.3470	2409382			Z
Aliph	nC32	35.5720	2114845			Z
Aliph	nC33	37.0130	1502943			Z
Aliph	nC34	38.7280	1163946			Z
Aliph	nC35	40.8080	870445			Z
Aliph	nC36	43.3510	802803			Z
Aliph	nC37	46.4710	830122			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns > 25%
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007813C**

Beach W5: Dogfence Beach Visit: 3

Comments:

Part C subsample

Location: Shore Upper

Local Date Time: 6/10/2016 4:18:18 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

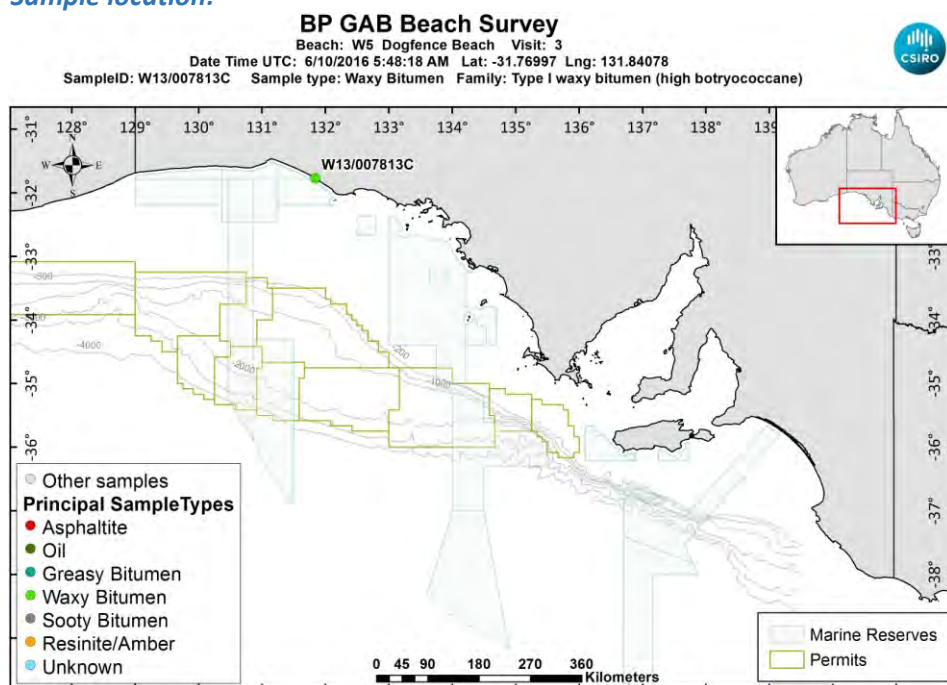
Size (cm): 2.2

Latitude (Y): -31.769970

Weight (gm): 2.61944

Longitude (X): 131.840775

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007813C_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007813_ABCDEF_Photo02.jpg](#)

Sample ID : W13/007813C**Beach W5: Dogfence Beach Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007813C_SPE_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

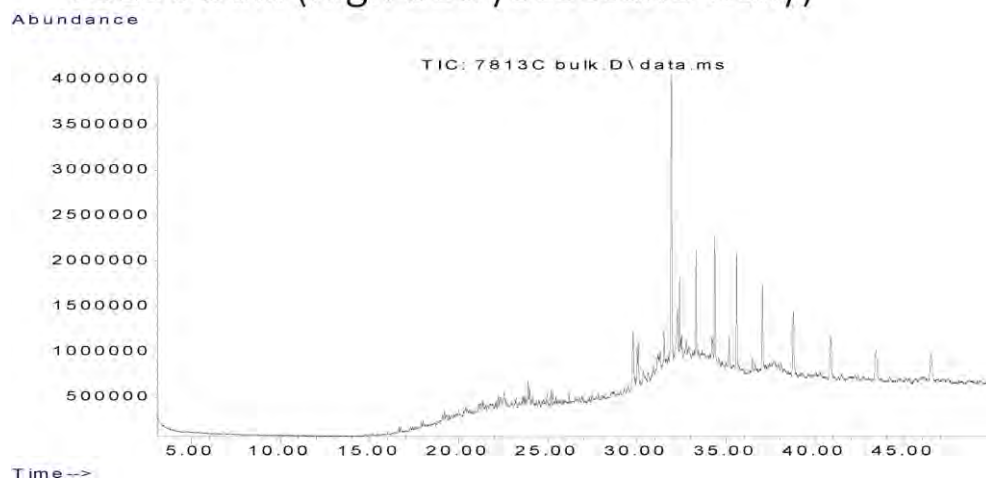
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			86.88	percent	Y
Inorg	Hydrogen			8.64371689860834	percent	Y
Inorg	Nitrogen			0.33	percent	Y
Inorg	Sulphur			1.42492128807382	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007813C_DISS_GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007813C_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7813C bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	26448387			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080	1986599			Z
Aliph	nC29	32.3700	3693577			Z
Aliph	nC30	33.2910	6022437			Z
Aliph	nC31	34.3470	8283800			Z
Aliph	nC32	35.5720	9001886			Z
Aliph	nC33	37.0130	7981992			Z
Aliph	nC34	38.7280	7087032			Z
Aliph	nC35	40.8080	5760327			Z
Aliph	nC36	43.3510	5083337			Z
Aliph	nC37	46.4710	5196740			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007813D**

Beach W5: Dogfence Beach Visit: 3

Comments:

Part D subsample

Location: Shore Upper

Local Date Time: 6/10/2016 4:18:18 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

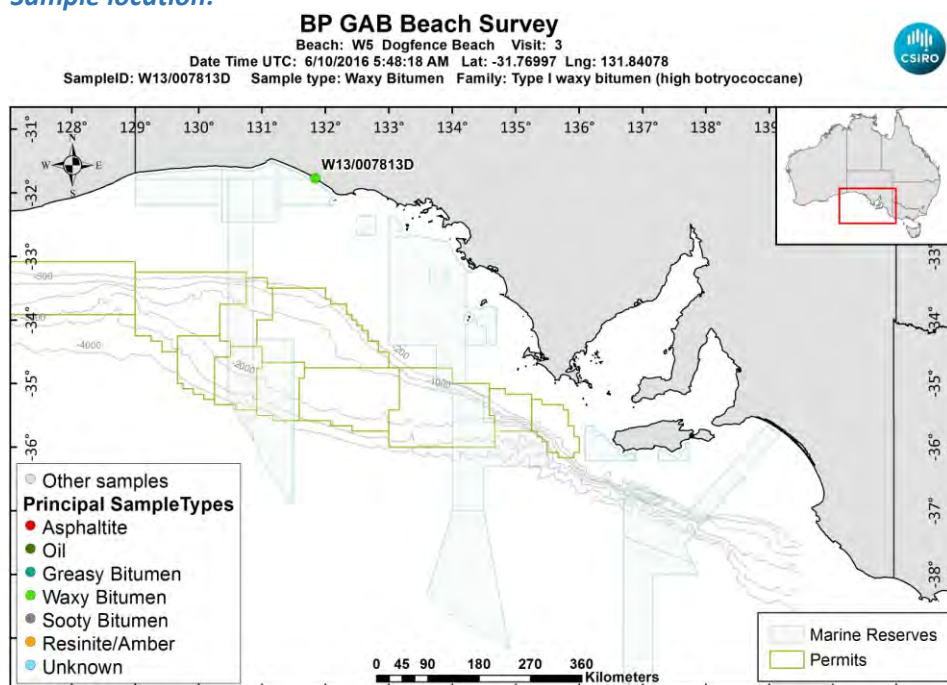
Size (cm): 1.7

Latitude (Y): -31.769970

Weight (gm): 0.88833

Longitude (X): 131.840775

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007813D_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007813_ABCDEF_Photo02.jpg](#)

Sample ID : W13/007813D**Beach W5: Dogfence Beach Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID: W13/007813D_SPE_ELEM-AN/01****Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

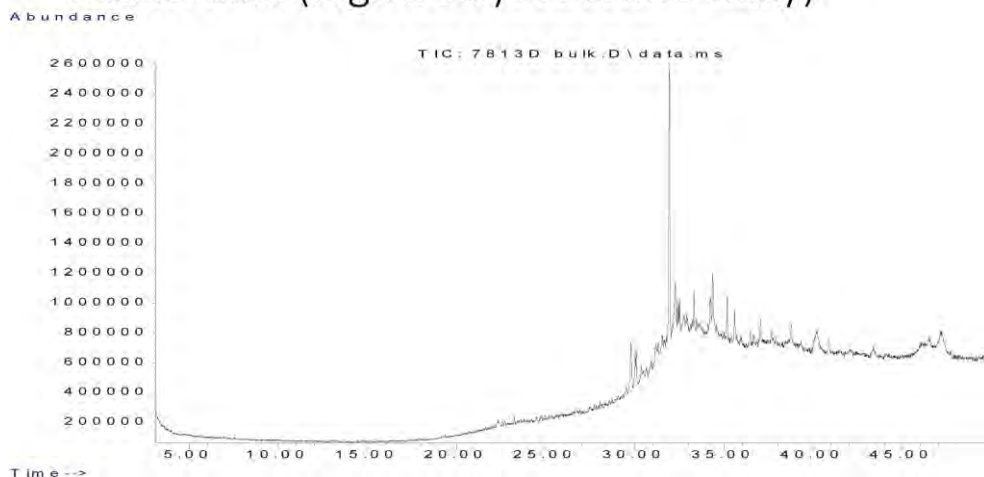
Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			89.57	percent	Y
Inorg	Hydrogen			10.920111332008	percent	Y
Inorg	Nitrogen			0.32	percent	Y
Inorg	Sulphur			1.82651210368919	percent	Y

Results for: GCMS with Full Scan**Unique ID: W13/007813D_DISS_GCMS-Scan/03****Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007813D_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk

Results for: GCMS with Full Scan

7813D bulk (high botryococcane waxy)



Data Sheet:

(default units ppb)

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Aliph	Botryococcane	31.9240	15188196			Z
Aliph	nC10	7.5110				U
Aliph	nC11	9.4450				U
Aliph	nC12	11.3220				U
Aliph	nC13	13.1110				U
Aliph	nC14	14.8030				U
Aliph	nC15	16.4030				U
Aliph	nC16	17.9160				U
Aliph	nC17	19.3500				U
Aliph	nC18	20.7170				U
Aliph	nC19	22.0170				U
Aliph	nC20	23.2570				U
Aliph	nC21	24.4410				U
Aliph	nC22	25.5760				U
Aliph	nC23	26.6620				U
Aliph	nC24	27.7060				U
Aliph	nC25	28.7100				U
Aliph	nC26	29.6680				U
Aliph	nC27	30.6080				U
Aliph	nC28	31.5080	501147			Z
Aliph	nC29	32.3700	617070			Z
Aliph	nC30	33.2910	1336725			Z
Aliph	nC31	34.3470	2136066			Z
Aliph	nC32	35.5720	1530274			Z
Aliph	nC33	37.0130	1637616			Z
Aliph	nC34	38.7280	1461288			Z
Aliph	nC35	40.8080	1122722			Z
Aliph	nC36	43.3510	804421			Z
Aliph	nC37	46.4710	1036786			Z
Aliph	nC8	4.0300				U
Aliph	nC9	5.6200				U
Aliph	Norpristane	18.5830				U
Aliph	Phytane	20.7870				U
Aliph	Pristane	19.3870				U

Results for: GCMS with Full Scan**Qualifier codes:**

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
D	Compound quantitated on a diluted sample
E	Inorganics: Estimated due to interference Organics: Concentration exceeds the calibration range of the instrument
J	Estimated - Result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ)
M	Duplicate injection precision not met
N	Spike sample not within control limits
O	Presumptive evidence of a compound
P	Concentration difference between primary and confirmation columns $> 25\%$
R	Spike/Surrogate failed recovery limits
S	Method of standard additions (MSA) used for calculation
T	Detected but Quantitated amount exceeded maximum
U	Compound Not Detected
V	overloaded and possibly not a water extract
X	Duplicate analysis not within control limits
Y	Detected
Z	Detected but not Quantified (too small)

Sample ID : **W13/007813E**

Beach W5: Dogfence Beach Visit: 3

Comments:

Part E subsample

Location: Shore Upper

Local Date Time: 6/10/2016 4:18:18 PM

Type: Waxy Bitumen

Family: Type I waxy bitumen (high botryococcane)

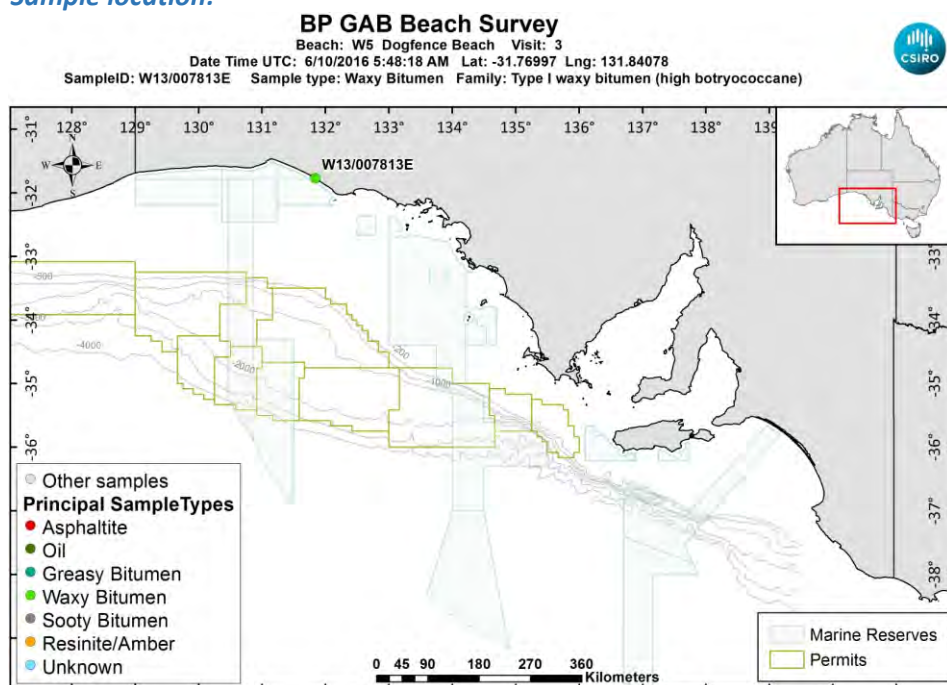
Size (cm): 1.6

Latitude (Y): -31.769970

Weight (gm): 1.50021

Longitude (X): 131.840775

Sample location:



[LinkedFiles\GAB_BCH1\SampleLocations\W13_007813E_Location.jpg](#)

Sample - laboratory image:



[LinkedFiles\GAB_BCH1\Samples\W13_007813_ABCDEF_Photo02.jpg](#)

Sample ID : W13/007813E**Beach W5: Dogfence Beach Visit: 3****Analyses Requested**

Split: Analysis: Sent:
1 Bitumen Determination NO

Analyses Completed:

Analysis: Instrument/Type:
Elemental CHNS Elemental Analyser Run: 1
Whole Oils GCMS with Full Scan Run: 3

Sample Analyses Completed:**Results for: Elemental Analyser****Unique ID:** W13/007813E_SPE_ELEM-AN/01**Instrument / Type:** Elemental Analyser Run: 1**for Analysis:** Elemental CHNS**Analysis Date:** 30/10/2017**Linked Image:** [None available](#)**Preparation:** Solid Phase Extract**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment:

Data Sheet:*(default units ppb)*

Type:	Compound / Variable:	Retentn Time:	Target Respse:	Value:	units:	Qualifier:
Inorg	Carbon			87.05	percent	Y
Inorg	Hydrogen			11.9346926441352	percent	Y
Inorg	Nitrogen			0.17	percent	Y
Inorg	Sulphur			1.96742021035114	percent	Y

Results for: GCMS with Full Scan**Unique ID:** W13/007813E_DISS_GCMS-Scan/03**Instrument / Type:** GCMS with Full Scan Run: 3**for Analysis:** Whole Oils**Analysis Date:** 30/10/2017**Linked Image:** [LinkedFiles\GAB_BCH1\GCMS\W13_007813E_bulk_WholeOil.jpg](#)**Preparation:** Dissolved in solvent**Method ID/s:**

Sample Volume: **Volume Units:** **Extract Volume:** **Dilution Factor:**
Comment: Bulk