Total Organic Carbon and Rock Eval with additional geochemical test of the following samples of North Slope, Alaska, wells:

Husky Oil NPR Operations Inc. (U. S. Geological Survey) J. W. Dalton No. 1 cuttings (8,220'-9,240') and core (8,337'-9,364'),
Husky Oil NPR Operations Inc. (U. S. Geological Survey) West Dease No. 1 core (4,150'),
Mobil Oil Corporation West Kuparuk State 3-11-11 cuttings (9,600'-10,940'), and
Husky Oil NPR Operations Inc. (U. S. Geological Survey) East Simpson No. 2 core (7,195'-7,344').

Received October 2006

Total of 102 pages in report

Alaska Geologic Materials Center Data Report No. 334

ConocoPhillips

Upstream Technology
Data Report

North Slope, Alaska Data for Alaska Geological Materials Center
October, 2006

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Total Organic Carbon/Rock Eval
GMC Samples North Slope, Alaska
October, 2006

GMC DATA REPORT 3 3 4

GMC	CoP Id No.	Well Name	Sample Type	Depth top	Depth base	TOC leco	S1	S2	S3	Tmax	s2 flag	HI	OI	S2/ S3	S1/ TOC	PI
GMC	US137146	J. W. Dalton 1	cuttings	8220	8230	5.45	0.87	8.64	0.81	439		159	15	11	16	0.09
GMC	US137147	J. W. Dalton 1	cuttings	8230	8240	2.28	0.47	3.40	0.97	437		149	43	4	21	0.12
GMC	US137148	J. W. Dalton 1	cuttings	8250	8260	2.44	0.54	4.15	0.67	438		170	27	6	22	0.12
GMC	US137149	J. W. Dalton 1	cuttings	8260	8270	2.00	0.28	2.10	0.81	438		105	41	3	14	0.12
GMC	US137150	J. W. Dalton 1	cuttings	8280	8290	2.28	0.44	3.12	0.66	437		137	29	5	19	0.12
GMC	US137151	J. W. Dalton 1	cuttings	8290	8300	1.51	0.29	1.00	0.87	434		66	58	1	19	0.22
GMC	US137152	J. W. Dalton 1	cuttings	8320	8330	1.80	0.23	0.81	0.94	435		45	52	1	13	0.22
GMC	US137153	J. W. Dalton 1	cuttings	8340	8350	2.24	0.35	2.55	1.15	436		114	51	2	16	0.12
GMC	US137154	J. W. Dalton 1	cuttings	8350	8360	2.31	0.37	3.43	1.02	435		148	44	3	16	0.10
GMC	US137155	J. W. Dalton 1	cuttings	8370	8380	1.79	0.30	1.86	0.71	436		104	40	3	17	0.14
GMC	US137156	J. W. Dalton 1	cuttings	8380	8390	1.29	0.22	1.27	0.52	436		98	40	2	17	0.15
GMC	US137157	J. W. Dalton 1	cuttings	8410	8420	1.25	0.21	1.76	0.40	438		141	32	4	17	0.11
GMC	US137158	J. W. Dalton 1	cuttings	8430	8440	1.58	0.45	3.10	0.42	438		196	27	7	28	0.13
GMC	US137159	J. W. Dalton 1	cuttings	8440	8450	1.38	0.41	2.67	0.30	438		193	22	9	30	0.13
GMC	US137160	J. W. Dalton 1	cuttings	8460	8470	1.69	0.50	2.48	0.34	438		147	20	7	30	0.17
GMC	US137161	J. W. Dalton 1	cuttings	8470	8480	0.99	0.48	1.72	0.28	437		174	28	6	48	0.22
GMC	US137162	J. W. Dalton 1	cuttings	8500	8510	0.77	0.13	0.55	0.37	435		71	48	1	17	0.19
GMC	US137163	J. W. Dalton 1	cuttings	8540	8550	1.47	0.19	1.31	0.42	437		89	29	3	13	0.13
GMC	US137205	J. W. Dalton 1	cuttings	8570	8580	1.12	0.32	1.88	0.27	440		168	24	7	29	0.15
GMC	US137164	J. W. Dalton 1	cuttings	8580	8590	1.31	0.17	1.27	0.64	437		97	49	2	13	0.12
GMC	US137165	J. W. Dalton 1	cuttings	8610	8620	1.25	0.12	1.02	0.70	439		82	56	1	10	0.11
GMC	US137166	J. W. Dalton 1	cuttings	8680	8690	0.64	0.09	0.82	0.49	439		128	77	2	14	0.10
GMC	US137167	J. W. Dalton 1	cuttings	8920	8930	0.25	0.05	0.19	0.23	387	*	76	92	1	20	0.21
GMC	US137168	J. W. Dalton 1	cuttings	9080	9090	0.33	0.07	0.26	0.21	439	*	79	64	1	21	0.21
GMC	US137169	J. W. Dalton 1	cuttings	9200	9210	0.14	0.03	0.11	0.20	397	*	79	143	1	21	0.21
GMC	US137170	J. W. Dalton 1	cuttings	9210	9220	0.23	0.07	0.17	0.14	386	*	74	61	1	30	0.29
GMC	US137171	J. W. Dalton 1	cuttings	9220	9230	0.25	0.07	0.16	0.19	386	*	64	76	1	28	0.30
GMC	US137172	J. W. Dalton 1	cuttings	9230	9240	0.42	0.11	0.29	0.41	440	*	69	98	1	26	0.28
GMC	US137142	J. W. Dalton 1	core	8337		0.53	0.24	0.43	0.07	325	*	81	13	6	45	0.36
GMC	US137143	J. W. Dalton 1	core	8340		0.37	0.77	0.97	0.20	423		262	54	5	208	0.44
GMC	US137144	J. W. Dalton 1	core	8541		0.08	0.07	0.08	0.02	400	*	100	25	4	88	0.47

Total Organic Carbon/Rock Eval
GMC Samples North Slope, Alaska
October, 2006

GMC	CoP Id No.	Well Name	Sample Type	Depth top	Depth base	TOC leco	S1	S2	S3	Tmax	s2 flag	HI	OI	S2/ S3	S1/ TOC	PI
GMC	US137145	J. W. Dalton 1	core	9364		0.93	0.22	0.16	0.09	307	*	17	10	2	24	0.58
GMC	US137141	West Dease 1	core chip	4150		0.75	0.23	0.19	0.05		*	25	7	4	31	0.55
GMC	US137117	West Kuparuk 3-11-11	cuttings	9600		1.58	0.63	4.00	0.24	440		253	15	17	40	0.14
GMC	US137118	West Kuparuk 3-11-11	cuttings	9620		2.59	0.77	5.79	1.63	438		224	63	4	30	0.12
GMC	US137119	West Kuparuk 3-11-11	cuttings	9640		1.54	0.57	3.58	0.37	439		232	24	10	37	0.14
GMC	US137120	West Kuparuk 3-11-11	cuttings	9680		1.64	0.46	4.39	0.39	438		268	24	11	28	0.09
GMC	US137121	West Kuparuk 3-11-11	cuttings	10700	10710	0.48	0.25	0.44	0.19	439	*	92	40	2	52	0.36
GMC	US137122	West Kuparuk 3-11-11	cuttings	10730	10740	0.31	0.19	0.32	0.10	364	*	103	32	3	61	0.37
GMC	US137123	West Kuparuk 3-11-11	cuttings	10850	10860	1.94	0.46	1.12	0.25	452		58	13	4	24	0.29
GMC	US137124	West Kuparuk 3-11-11	cuttings	10890	10900	32.44	4.80	50.96	0.85	463		157	3	60	15	0.09
GMC	US137125	West Kuparuk 3-11-11	cuttings	10900	10910	25.22	4.33	40.70	0.84	461		161	3	48	17	0.10
GMC	US137126	West Kuparuk 3-11-11	cuttings	10910	10920	31.05	4.75	53.42	1.11	462		172	4	48	15	0.08
GMC	US137206	West Kuparuk 3-11-11	cuttings	10920	10930	26.98	3.45	42.86	1.10	463		159	4	39	13	0.07
GMC	US137127	West Kuparuk 3-11-11	cuttings	10930	10940	27.41	3.27	45.13	0.96	462		165	4	47	12	0.07
GMC	US137128	East Simpson 2	core	7195		0.97	0.14	0.39	0.09	430	*	40	9	4	14	0.26
GMC	US137129	East Simpson 2	core	7205		1.29	0.07	0.44	0.07	446	*	34	5	6	5	0.14
GMC	US137130	East Simpson 2	core	7215		1.80	0.10	1.79	0.08	445		99	4	22	6	0.05
GMC	US137131	East Simpson 2	core	7225		8.69	0.46	6.60	0.32	449		76	4	21	5	0.07
GMC	US137132	East Simpson 2	core	7302		9.15	0.69	13.55	0.37	448		148	4	37	8	0.05
GMC	US137133	East Simpson 2	core	7303		7.49	0.62	14.66	0.36	446		196	5	41	8	0.04
GMC	US137134	East Simpson 2	core	7318		1.81	0.21	2.42	0.16	446		134	9	15	12	0.08
GMC	US137135	East Simpson 2	core	7325		9.73	0.61	16.15	0.40	446		166	4	40	6	0.04
GMC	US137136	East Simpson 2	core	7327		1.25	0.09	0.72	0.19	460		58	15	4	7	0.11
GMC	US137137	East Simpson 2	core	7331		2.36	0.17	2.25	0.10	451		95	4	22	7	0.07
GMC	US137138	East Simpson 2	core	7332		8.30	0.90	22.49	0.31	447		271	4	73	11	0.04
GMC	US137139	East Simpson 2	core	7341		0.90	0.05	0.24	0.18	448	*	27	20	1	6	0.17
GMC	US137140	East Simpson 2	core	7344		10.08	0.53	15.92	0.30	448		158	3	53	5	0.03

Total Organic Carbon/Rock Eval
GMC Samples North Slope, Alaska
October, 2006

GMC	CoP Id No.	Well Name	Sample Type	Depth top	Depth base	TOC leco	S1	S2	S3	Tmax	s2 flag	HI	OI	S2/ S3	S1/ TOC	PI

Note: "-1" indicates not measured or meaningless ratio
* Tmax data not reliable due to poor S2 peak
TOC = weight percent organic carbon in rock
S1, S2 = mg hydrocarbons per gram of rock
S3 = mg carbon dioxide per gram of rock
Tmax = oC
HI = hydrogen index = S2 x 100 / TOC
OI = oxygen index = S3 x 100 / TOC
S1/TOC = normalized oil content = S1 x 100 / TOC
PI = production index = S1 / (S1+S2)
Calculcated%VRo = 0.0180 x Tmax - 7.16 (Jarvie et al., 2001)
Measured %Ro = measured vitrinite reflectance

Notes:
c = Rock-Eval analysis checked and confirmed
lc = Leco TOC analysis checked and confirmed

Pyrogram:
n=normal
ltS2sh = low temperature S2 shoulder
ltS2p = low temperature S2 peak
htS2p = high temperature S2 peak
f = flat S2 peak
na = printer malfunction pyrogram not available

EOM\LC

Company:	CONOCOPHILLIPS	Project #:	06-598-A

Client ID		Lab ID	Rock Weight (g)	Net Extract Weight (g)	% Extract	EOM (ppm)
US137818	W.Kuparuk 3-11-11, 10890-900	CP281145	0.5129	0.0064	1.25	12478
US137819	W.Kuparuk 3-11-11, 10900-910	CP281146	0.1729	0.0023	1.33	13302
US137820	J. W. Dalton 1, 8440-50	CP281147	0.4570	0.0055	1.20	12035
US137821	J. W. Dalton 1, 8610-20	CP281148	0.2108	0.0003	0.14	1423
US137138	E.Simpson 2, 7332	CP280393	20.6597	0.0168	0.08	813

Baseline Resolution, Inc., 143 Vision Park Blvd., Shenandoah, Texas 77384 • Phone: 281-681-2200 • Fax: 281-681-0326 • Email: info@brilabs.com

Company: CONOCOPHILLIPS **Project #:** 06-598-A

Client ID	Lab ID	Sample Weight	SAT Weight	ARO Weight	NSO Weight	ASPH Weight	% SAT Normalized	% ARO Normalized	% NSO Normalized	% ASPH Normalized
US137818	CP281145	0.0051	0.0003	0.0000	0.0012	0.0024	7.69		30.77	61.54
US137819	CP281146	0.0022	0.0000	0.0000	0.0005	0.0009			35.71	64.29
US137820	CP281147	0.0006	0.0000	0.0000	0.0004	0.0002			66.69	33.31
US137821	CP281148	0.0009	0.0000	0.0000	0.0001	0.0000			100.00	
US137138	CP280393	0.0153	0.0020	0.0028	0.0038	0.0037	16.26	22.77	30.89	30.08

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GMC DATA REPORT 3 3 4

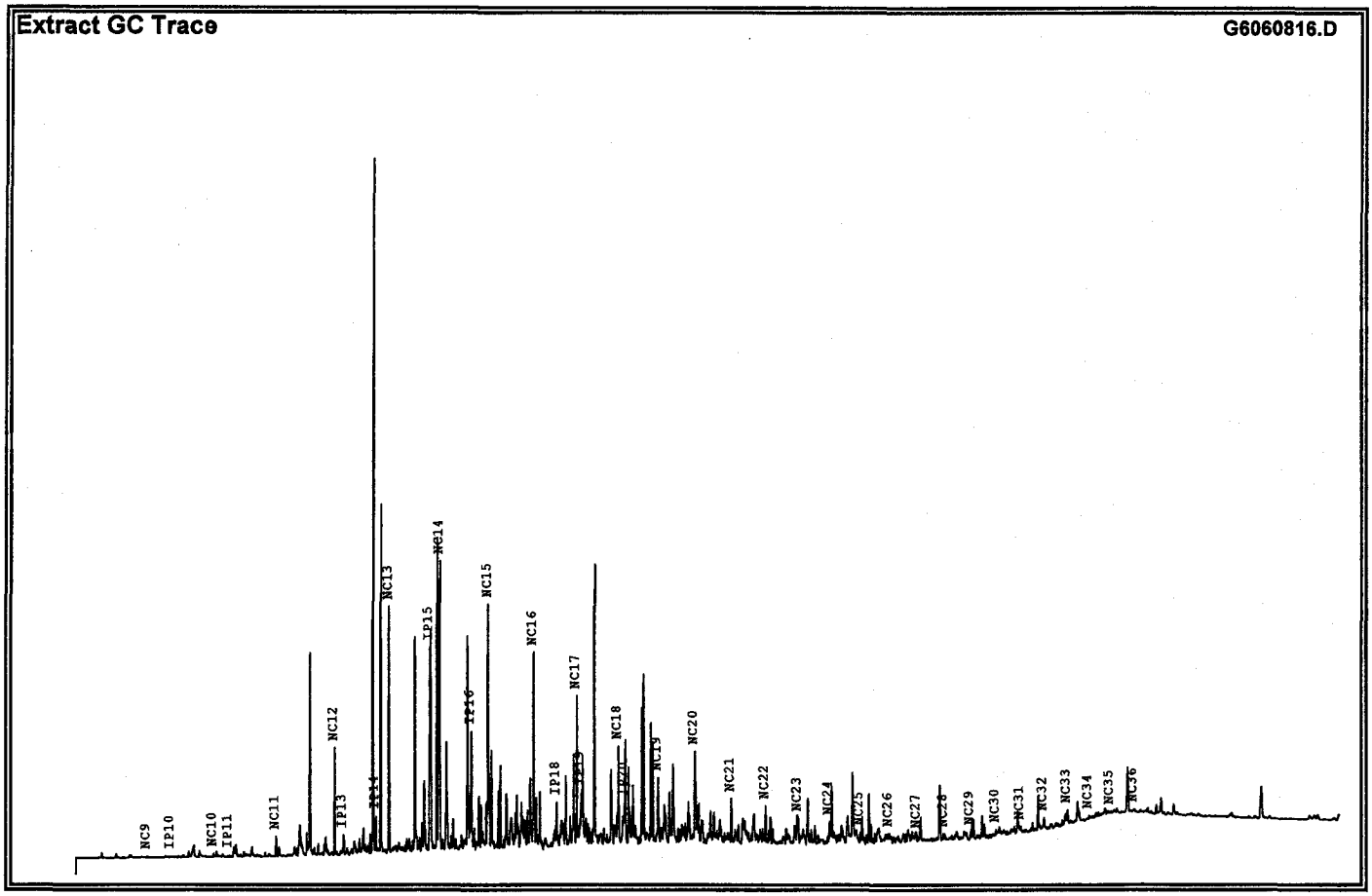
Extract GC

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

EXTRACT GC

Company:	CONOCOPHILLIPS	**Client ID:**	US137818
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP281145
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:	PRUDHOE BAY	**Formation:**	
Well Name:	WEST KUP STATE 3-11-11	**Geologic Age:**	
Latitude:	70.3352	**Top Depth:**	10890 FT
Longitude:	-149.3067	**Bottom Depth:**	10900 FT

Extract GC Trace G6060816.D



EGC parameters	
Ratios	
Pristane/Phytane	2.26
Pristane/*n* C_{17}	0.60
Phytane/*n* C_{18}	0.38
nC_{18}/nC_{19}	1.44
nC_{17}/nC_{29}	14.97
CPI Marzi[4]	0.77

EGC parameters	
Resolved Components (%)	
Normal Paraffins	12.1
Isoprenoids	4.3
Resolved unknowns	83.6

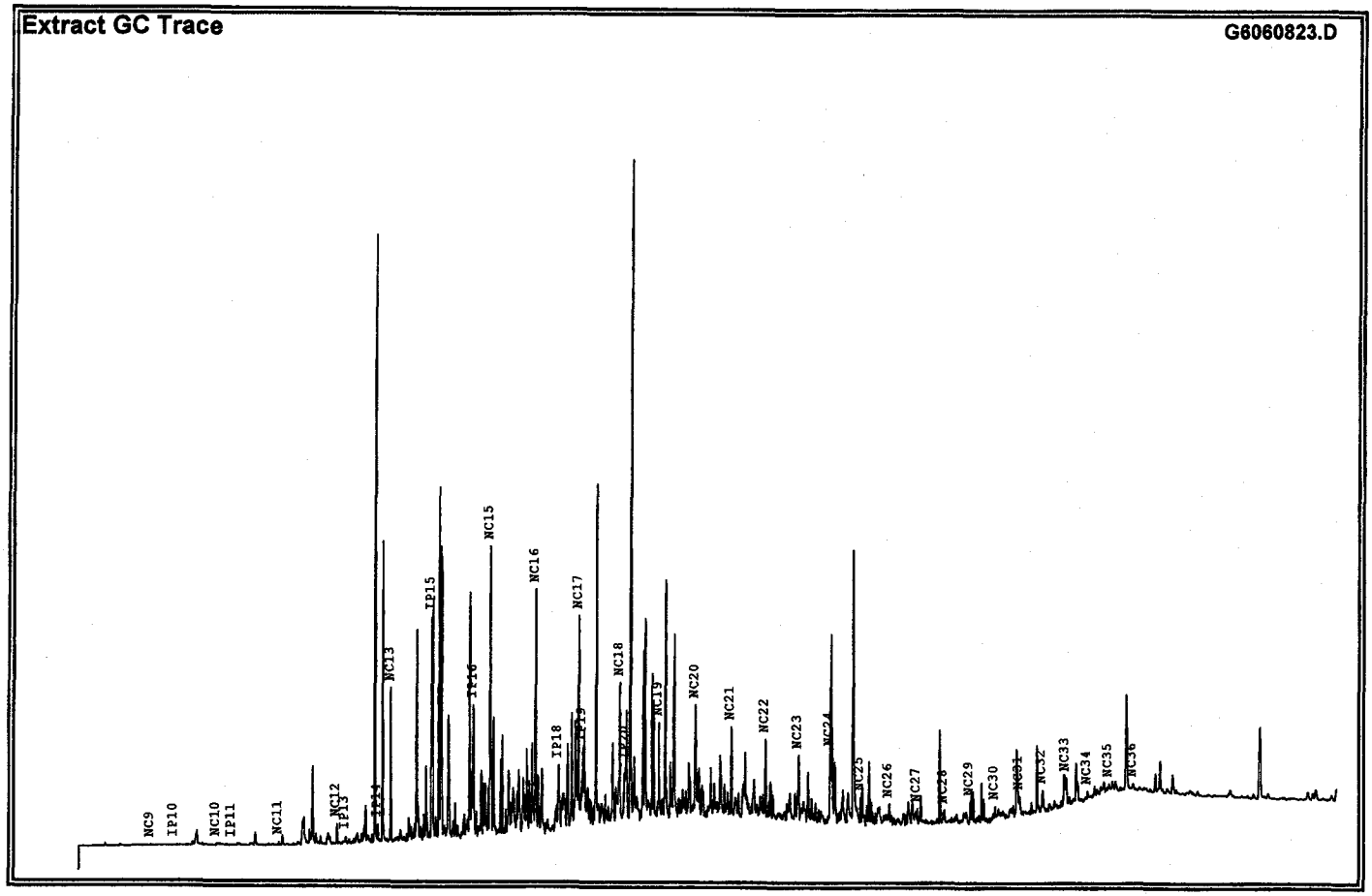
[1]Thompson, K.F.M.,1983.GCA:V.47, p.303. [2]Mango, F.D.,1994.GCA: V.58, p.895. [3]Halpern,H.I.,1995,AAPG Bull.: V.79, p.801. [4]Marzi,1993,OrgG;20,1301.

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**G6060816.D**

Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9	21.057	364	107	0.01	0.01
NC10	Normal Alkane C10	26.645	959	301	0.02	0.03
IP11	Isoprenoid C11	27.946	346	120	0.01	0.01
NC11	Normal Alkane C11	31.899	5631	1774	0.12	0.16
NC12	Normal Alkane C12	36.816	28947	9527	0.63	0.84
IP13	Isoprenoid C13	37.557	7643	1754	0.17	0.16
IP14	Isoprenoid C14	40.316	10567	3272	0.23	0.29
NC13	Normal Alkane C13	41.426	69348	21762	1.50	1.92
IP15	Isoprenoid C15	44.916	66253	17990	1.43	1.59
NC14	Normal Alkane C14	45.758	89002	25617	1.93	2.26
IP16	Isoprenoid C16	48.434	52349	10531	1.13	0.93
NC15	Normal Alkane C15	49.834	71470	21723	1.55	1.92
NC16	Normal Alkane C16	53.684	62368	17467	1.35	1.54
IP18	Isoprenoid C18	55.625	21762	4070	0.47	0.36
NC17	Normal Alkane C17	57.335	45888	13330	0.99	1.18
IP19	Isoprenoid C19 (Pristane)	57.713	27640	4755	0.60	0.42
NC18	Normal Alkane C18	60.809	31973	8656	0.69	0.77
IP20	Isoprenoid C20 (Phytane)	61.327	12207	3605	0.26	0.32
NC19	Normal Alkane C19	64.110	22163	5810	0.48	0.51
NC20	Normal Alkane C20	67.206	42203	8130	0.91	0.72
NC21	Normal Alkane C21	70.271	13527	3993	0.29	0.35
NC22	Normal Alkane C22	73.147	12827	3372	0.28	0.30
NC23	Normal Alkane C23	75.911	8701	2336	0.19	0.21
NC24	Normal Alkane C24	78.550	9725	2001	0.21	0.18
NC25	Normal Alkane C25	81.113	4141	1021	0.09	0.09
NC26	Normal Alkane C26	83.560	3544	859	0.08	0.08
NC27	Normal Alkane C27	85.924	2326	608	0.05	0.05
NC28	Normal Alkane C28	88.199	2748	577	0.06	0.05
NC29	Normal Alkane C29	90.397	3065	699	0.07	0.06
NC30	Normal Alkane C30	92.523	3004	655	0.07	0.06
NC31	Normal Alkane C31	94.593	3526	593	0.08	0.05
NC32	Normal Alkane C32	96.562	6853	1058	0.15	0.09
NC33	Normal Alkane C33	98.563	7707	1320	0.17	0.12
NC34	Normal Alkane C34	100.393	1867	365	0.04	0.03
NC35	Normal Alkane C35	102.225	1602	258	0.03	0.02
NC36	Normal Alkane C36	104.240	2037	291	0.04	0.03
NC37	Normal Alkane C37					
NC38	Normal Alkane C38					
NC39	Normal Alkane C39					
NC40	Normal Alkane C40					
NC41	Normal Alkane C41					

Company:	CONOCOPHILLIPS	**Client ID:**	US137819
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP281146
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:	PRUDHOE BAY	**Formation:**	
Well Name:	WEST KUP STATE 3-11-11	**Geologic Age:**	
Latitude:	70.3352	**Top Depth:**	10900 FT
Longitude:	-149.3067	**Bottom Depth:**	10910 FT

Extract GC Trace G6060823.D



EGC parameters	
Ratios	
Pristane/Phytane	2.27
Pristane/*n* C_{17}	0.60
Phytane/*n* C_{18}	0.38
$nC_{18}/n\,C_{19}$	1.52
$nC_{17}/n\,C_{29}$	9.19
CPI Marzi[4]	0.90

EGC parameters	
Resolved Components (%)	
Normal Paraffins	9.3
Isoprenoids	3.6
Resolved unknowns	87.2

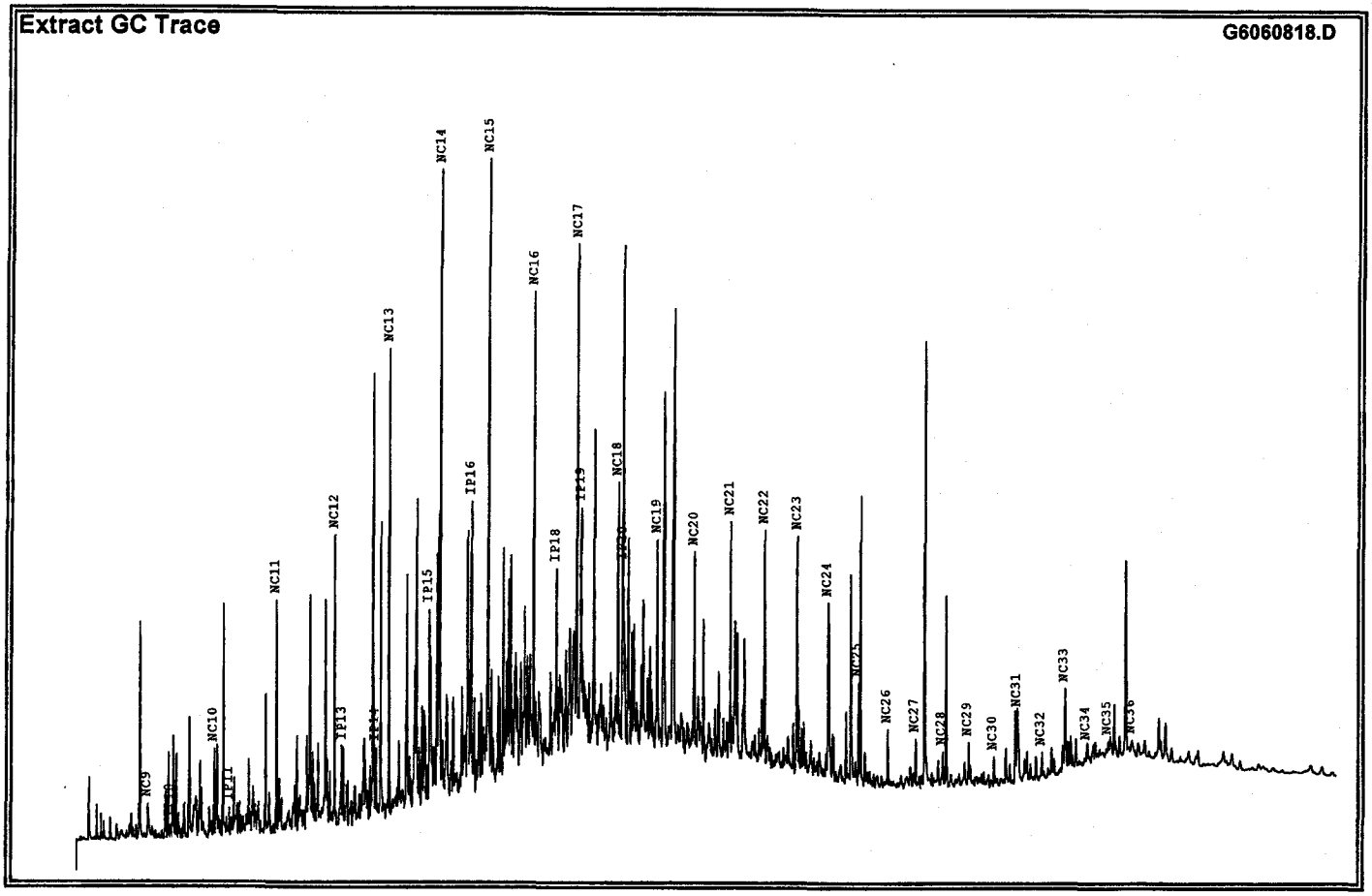
[1]Thompson, K.F.M.,1983.GCA:V.47, p.303. [2]Mango, F.D.,1994.GCA: V.58, p.895. [3]Halpern,H.I.,1995,AAPG Bull.: V.79, p.801. [4]Marzi,1993,OrgG;20,1301.

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**G6060823.D**

Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9	21.078	142	43	0.00	0.00
NC10	Normal Alkane C10	26.655	431	136	0.01	0.01
IP11	Isoprenoid C11	27.952	178	45	0.00	0.00
NC11	Normal Alkane C11	31.903	730	226	0.02	0.02
NC12	Normal Alkane C12	36.814	4364	1292	0.09	0.12
IP13	Isoprenoid C13	37.554	2409	445	0.05	0.04
IP14	Isoprenoid C14	40.313	3955	1142	0.08	0.10
NC13	Normal Alkane C13	41.420	31678	9940	0.66	0.89
IP15	Isoprenoid C15	44.910	52464	14379	1.09	1.29
NC14	Normal Alkane C14					
IP16	Isoprenoid C16	48.433	46322	8565	0.96	0.77
NC15	Normal Alkane C15	49.829	61751	18824	1.28	1.68
NC16	Normal Alkane C16	53.682	56901	15913	1.18	1.42
IP18	Isoprenoid C18	55.622	21544	4295	0.45	0.38
NC17	Normal Alkane C17	57.336	51258	13824	1.07	1.24
IP19	Isoprenoid C19 (Pristane)	57.709	30596	5204	0.64	0.47
NC18	Normal Alkane C18	60.812	35902	9083	0.75	0.81
IP20	Isoprenoid C20 (Phytane)	61.305	13464	3618	0.28	0.32
NC19	Normal Alkane C19	64.112	23581	6269	0.49	0.56
NC20	Normal Alkane C20	67.214	37003	7296	0.77	0.65
NC21	Normal Alkane C21	70.269	20812	5874	0.43	0.53
NC22	Normal Alkane C22	73.150	19800	5134	0.41	0.46
NC23	Normal Alkane C23	75.908	15665	4254	0.33	0.38
NC24	Normal Alkane C24	78.567	14794	4496	0.31	0.40
NC25	Normal Alkane C25	81.108	7258	1762	0.15	0.16
NC26	Normal Alkane C26	83.551	5859	1381	0.12	0.12
NC27	Normal Alkane C27	85.917	4052	1063	0.08	0.10
NC28	Normal Alkane C28	88.191	3750	915	0.08	0.08
NC29	Normal Alkane C29	90.393	5576	1356	0.12	0.12
NC30	Normal Alkane C30	92.517	4798	972	0.10	0.09
NC31	Normal Alkane C31	94.580	8712	1296	0.18	0.12
NC32	Normal Alkane C32	96.550	8991	1403	0.19	0.13
NC33	Normal Alkane C33	98.554	13140	1814	0.27	0.16
NC34	Normal Alkane C34	100.388	2461	524	0.05	0.05
NC35	Normal Alkane C35	102.217	2714	495	0.06	0.04
NC36	Normal Alkane C36	104.245	3792	474	0.08	0.04
NC37	Normal Alkane C37					
NC38	Normal Alkane C38					
NC39	Normal Alkane C39					
NC40	Normal Alkane C40					
NC41	Normal Alkane C41					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Country:	**UNITED STATES**	**Project #:**	**06-598-A**
Basin:		**Lab ID:**	**CP281147**
Lease:		**Sample Type:**	**PICKED CTGS**
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	**J.W. DALTON-1**	**Geologic Age:**	
Latitude:		**Top Depth:**	**8440 FT**
Longitude:		**Bottom Depth:**	**8450 FT**

Extract GC Trace G6060818.D



EGC parameters	
Ratios	
Pristane/Phytane	4.32
Pristane/*n* C_{17}	0.66
Phytane/*n* C_{18}	0.32
$nC_{18}/n\,C_{19}$	1.05
$nC_{17}/n\,C_{29}$	10.54
CPI Marzi[4]	1.08

EGC parameters	
Resolved Components (%)	
Normal Paraffins	13.5
Isoprenoids	3.8
Resolved unknowns	82.6

GMC DATA REPORT 3 3 4

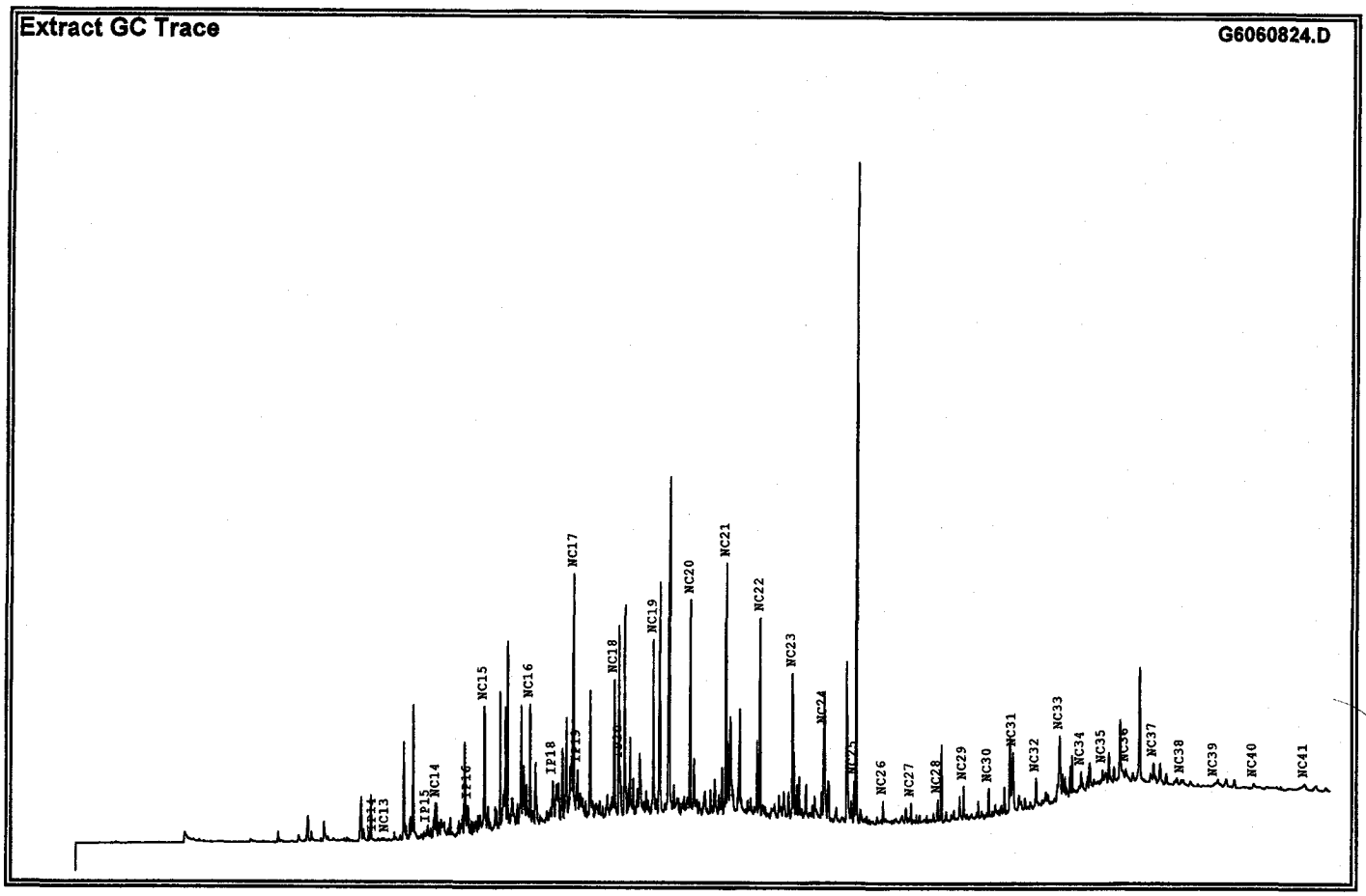
[1]Thompson, K.F.M.,1983.GCA:V.47, p.303. [2]Mango, F.D.,1994.GCA: V.58, p.895. [3]Halpern,H.I.,1995,AAPG Bull.: V.79, p.801. [4]Marzi,1993,OrgG;20,1301.

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**G6060818.D**

Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9	21.049	5053	1693	0.07	0.10
NC10	Normal Alkane C10	26.640	13004	4297	0.18	0.25
IP11	Isoprenoid C11	27.942	4065	1354	0.05	0.08
NC11	Normal Alkane C11	31.898	35319	11445	0.48	0.66
NC12	Normal Alkane C12	36.816	45959	14412	0.62	0.84
IP13	Isoprenoid C13	37.556	14550	3905	0.20	0.23
IP14	Isoprenoid C14	40.314	11870	3517	0.16	0.20
NC13	Normal Alkane C13	41.425	73853	23035	0.99	1.34
IP15	Isoprenoid C15	44.876	45685	9683	0.61	0.56
NC14	Normal Alkane C14	45.762	109719	31194	1.48	1.81
IP16	Isoprenoid C16	48.417	68117	14462	0.92	0.84
NC15	Normal Alkane C15	49.840	112746	30986	1.52	1.80
NC16	Normal Alkane C16	53.694	83253	23471	1.12	1.36
IP18	Isoprenoid C18	55.632	56717	9578	0.76	0.56
NC17	Normal Alkane C17	57.346	100910	25287	1.36	1.47
IP19	Isoprenoid C19 (Pristane)	57.706	66823	12269	0.90	0.71
NC18	Normal Alkane C18	60.817	47680	13159	0.64	0.76
IP20	Isoprenoid C20 (Phytane)	61.284	15465	6416	0.21	0.37
NC19	Normal Alkane C19	64.120	45618	10488	0.61	0.61
NC20	Normal Alkane C20	67.267	42420	10241	0.57	0.59
NC21	Normal Alkane C21	70.278	41719	11997	0.56	0.70
NC22	Normal Alkane C22	73.163	42133	11658	0.57	0.68
NC23	Normal Alkane C23	75.925	45978	11723	0.62	0.68
NC24	Normal Alkane C24	78.573	32860	8733	0.44	0.51
NC25	Normal Alkane C25	81.121	19032	5023	0.26	0.29
NC26	Normal Alkane C26	83.563	11061	2833	0.15	0.16
NC27	Normal Alkane C27	85.926	8893	2387	0.12	0.14
NC28	Normal Alkane C28	88.200	7848	1746	0.11	0.10
NC29	Normal Alkane C29	90.402	9573	2193	0.13	0.13
NC30	Normal Alkane C30	92.535	6047	1459	0.08	0.08
NC31	Normal Alkane C31	94.573	12861	2472	0.17	0.14
NC32	Normal Alkane C32	96.577	6793	1316	0.09	0.08
NC33	Normal Alkane C33	98.554	29223	4110	0.39	0.24
NC34	Normal Alkane C34	100.405	2590	849	0.03	0.05
NC35	Normal Alkane C35	102.243	5549	766	0.07	0.04
NC36	Normal Alkane C36	104.246	5886	746	0.08	0.04
NC37	Normal Alkane C37					
NC38	Normal Alkane C38					
NC39	Normal Alkane C39					
NC40	Normal Alkane C40					
NC41	Normal Alkane C41					

Company:	CONOCOPHILLIPS	**Client ID:**	US137821
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:		**Lab ID:**	CP281148
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	J.W. DALTON-1	**Geologic Age:**	
Latitude:		**Top Depth:**	8610 FT
Longitude:		**Bottom Depth:**	8620 FT

Extract GC Trace G6060824.D



EGC parameters	
Ratios	
Pristane/Phytane	1.74
Pristane/*n* C_{17}	0.26
Phytane/*n* C_{18}	0.32
$nC_{18}/n\,C_{19}$	0.72
$nC_{17}/n\,C_{29}$	7.27
CPI Marzi[4]	1.17

EGC parameters	
Resolved Components (%)	
Normal Paraffins	15.6
Isoprenoids	1.6
Resolved unknowns	82.6

[1]Thompson, K.F.M.,1983.GCA:V.47, p.303. [2]Mango, F.D.,1994.GCA: V.58, p.895. [3]Halpern,H.I.,1995,AAPG Bull.: V.79, p.801. [4]Marzi,1993,OrgG;20,1301.

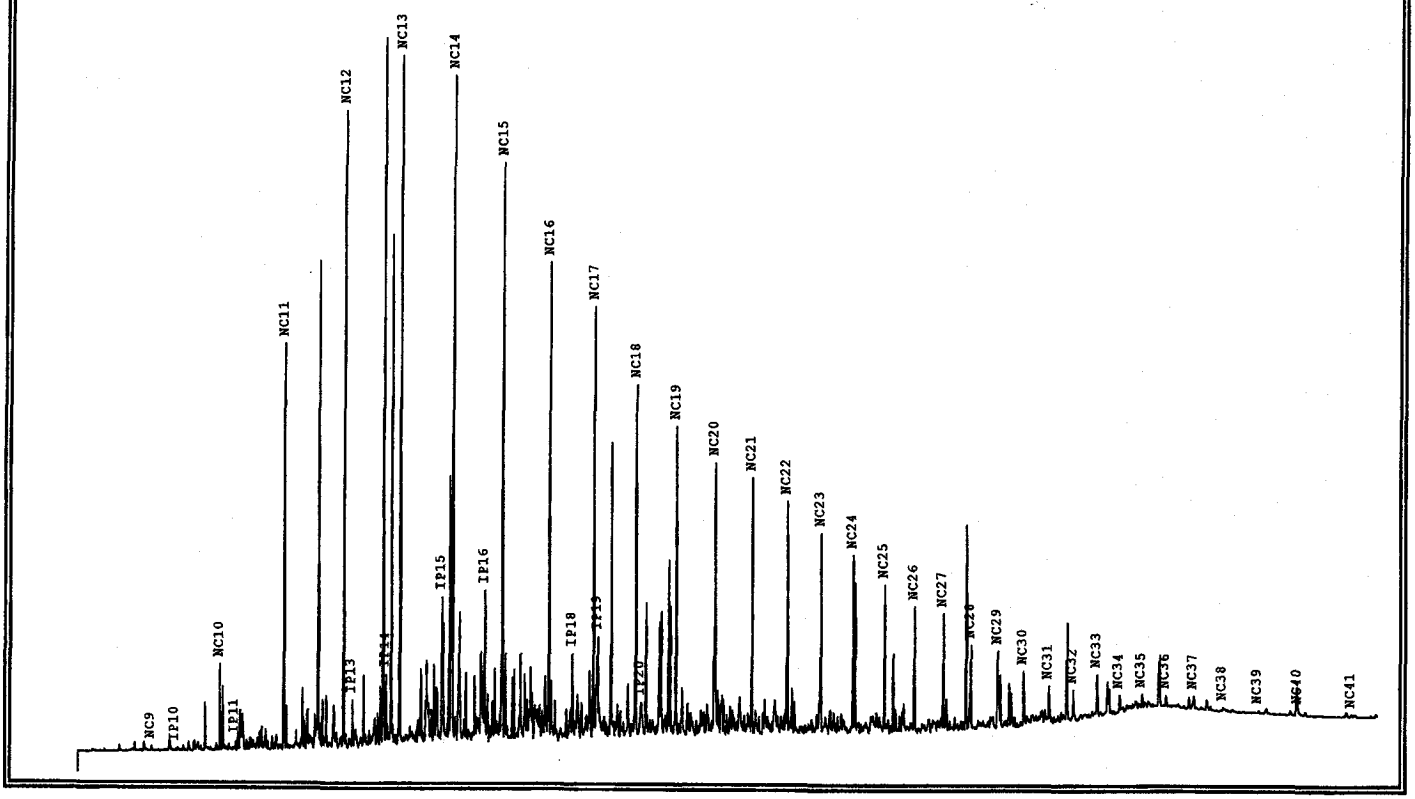
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**G6060824.D**

Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9					
NC10	Normal Alkane C10					
IP11	Isoprenoid C11					
NC11	Normal Alkane C11					
NC12	Normal Alkane C12					
IP13	Isoprenoid C13					
IP14	Isoprenoid C14	40.346	539	95	0.02	0.01
NC13	Normal Alkane C13	41.405	228	59	0.01	0.01
IP15	Isoprenoid C15	44.897	2294	482	0.07	0.07
NC14	Normal Alkane C14	45.733	6579	1880	0.21	0.28
IP16	Isoprenoid C16	48.394	8974	1590	0.29	0.24
NC15	Normal Alkane C15	49.775	21787	7049	0.70	1.05
NC16	Normal Alkane C16	53.670	24277	6787	0.77	1.01
IP18	Isoprenoid C18	55.613	13495	2294	0.43	0.34
NC17	Normal Alkane C17	57.316	59748	13882	1.91	2.06
IP19	Isoprenoid C19 (Pristane)	57.682	15402	2831	0.49	0.42
NC18	Normal Alkane C18	60.795	27274	7698	0.87	1.15
IP20	Isoprenoid C20 (Phytane)	61.258	8835	2609	0.28	0.39
NC19	Normal Alkane C19	64.103	37646	9808	1.20	1.46
NC20	Normal Alkane C20	67.253	44202	12052	1.41	1.79
NC21	Normal Alkane C21	70.266	49290	14218	1.57	2.11
NC22	Normal Alkane C22	73.148	40392	11220	1.29	1.67
NC23	Normal Alkane C23	75.905	31233	8189	1.00	1.22
NC24	Normal Alkane C24	78.556	17208	5107	0.55	0.76
NC25	Normal Alkane C25	81.103	8309	2326	0.27	0.35
NC26	Normal Alkane C26	83.543	5097	1287	0.16	0.19
NC27	Normal Alkane C27	85.909	4358	1145	0.14	0.17
NC28	Normal Alkane C28	88.190	5368	1259	0.17	0.19
NC29	Normal Alkane C29	90.388	8213	1911	0.26	0.28
NC30	Normal Alkane C30	92.521	6424	1625	0.20	0.24
NC31	Normal Alkane C31	94.579	21146	3348	0.67	0.50
NC32	Normal Alkane C32	96.573	8156	1630	0.26	0.24
NC33	Normal Alkane C33	98.568	31379	3608	1.00	0.54
NC34	Normal Alkane C34	100.387	6948	1183	0.22	0.18
NC35	Normal Alkane C35	102.217	5157	870	0.16	0.13
NC36	Normal Alkane C36	104.186	4646	701	0.15	0.10
NC37	Normal Alkane C37	106.513	7111	1112	0.23	0.17
NC38	Normal Alkane C38	108.861	2142	307	0.07	0.05
NC39	Normal Alkane C39	111.721	1926	223	0.06	0.03
NC40	Normal Alkane C40	115.042	2900	276	0.09	0.04
NC41	Normal Alkane C41	119.333	7155	340	0.23	0.05

Company:	CONOCOPHILLIPS	Client ID:	US137138
Country:	UNITED STATES	Project #:	06-598-A
Basin:	NORTH SLOPE	Lab ID:	CP280393
Lease:		Sample Type:	CORE
Block:		Sampling Point:	
Field:		Formation:	
Well Name:	EAST SIMPSON 2	Geologic Age:	
Latitude:	70.9785	Top Depth:	7332.08 FT
Longitude:	-154.674	Bottom Depth:	FT

Extract GC Trace

G6060801.D



EGC parameters	
Ratios	
Pristane/Phytane	2.38
Pristane/*n* C_{17}	0.36
Phytane/*n* C_{18}	0.18
$nC_{18}/n\,C_{19}$	1.13
$nC_{17}/n\,C_{29}$	4.76
CPI Marzi[4]	1.03

EGC parameters	
Resolved Components (%)	
Normal Paraffins	27.8
Isoprenoids	3.6
Resolved unknowns	68.5

[1]Thompson, K.F.M.,1983.GCA:V.47, p.303. [2]Mango, F.D.,1994.GCA: V.58, p.895. [3]Halpern,H.I.,1995,AAPG Bull.: V.79, p.801. [4]Marzi,1993,OrgG;20,1301.

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**G6060801.D**

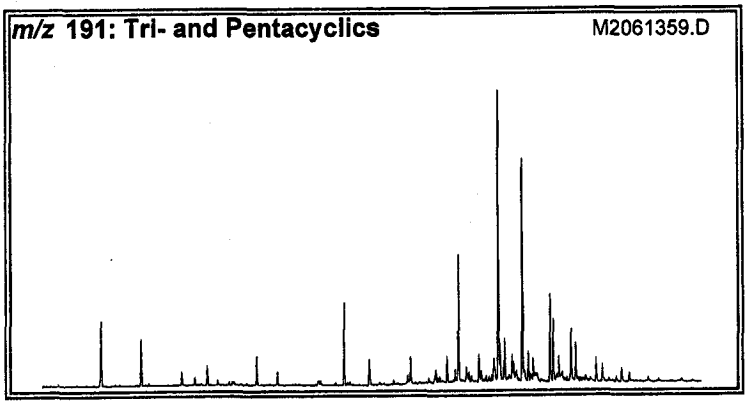
Peak Label	Compound Name	Ret. Time	Area	Height	Area%	Hght%
NC9	Normal Alkane C9	21.067	1121	348	0.02	0.02
NC10	Normal Alkane C10	26.656	17668	6301	0.29	0.41
IP11	Isoprenoid C11	27.957	1927	673	0.03	0.04
NC11	Normal Alkane C11	31.922	90659	29674	1.50	1.95
NC12	Normal Alkane C12	36.848	147380	46658	2.45	3.06
IP13	Isoprenoid C13	37.573	13360	3486	0.22	0.23
IP14	Isoprenoid C14	40.328	17492	5192	0.29	0.34
NC13	Normal Alkane C13	41.453	158618	50224	2.63	3.29
IP15	Isoprenoid C15	44.905	47583	10585	0.79	0.69
NC14	Normal Alkane C14	45.781	163736	48720	2.72	3.20
IP16	Isoprenoid C16	48.417	51348	11021	0.85	0.72
NC15	Normal Alkane C15	49.855	144250	42315	2.39	2.78
NC16	Normal Alkane C16	53.706	122964	34990	2.04	2.30
IP18	Isoprenoid C18	55.633	30029	6331	0.50	0.42
NC17	Normal Alkane C17	57.357	110608	31594	1.84	2.07
IP19	Isoprenoid C19 (Pristane)	57.711	39589	7413	0.66	0.49
NC18	Normal Alkane C18	60.826	91531	25682	1.52	1.68
IP20	Isoprenoid C20 (Phytane)	61.291	16654	2498	0.28	0.16
NC19	Normal Alkane C19	64.128	80907	22634	1.34	1.48
NC20	Normal Alkane C20	67.274	78936	19919	1.31	1.31
NC21	Normal Alkane C21	70.288	65396	18784	1.09	1.23
NC22	Normal Alkane C22	73.167	63037	17023	1.05	1.12
NC23	Normal Alkane C23	75.927	54893	14643	0.91	0.96
NC24	Normal Alkane C24	78.577	48736	12987	0.81	0.85
NC25	Normal Alkane C25	81.122	40305	10853	0.67	0.71
NC26	Normal Alkane C26	83.572	34854	9230	0.58	0.61
NC27	Normal Alkane C27	85.933	31397	8574	0.52	0.56
NC28	Normal Alkane C28	88.213	23750	6185	0.39	0.41
NC29	Normal Alkane C29	90.414	23217	5640	0.39	0.37
NC30	Normal Alkane C30	92.542	17744	4023	0.29	0.26
NC31	Normal Alkane C31	94.601	11925	2721	0.20	0.18
NC32	Normal Alkane C32	96.595	10592	2227	0.18	0.15
NC33	Normal Alkane C33	98.540	15614	3092	0.26	0.20
NC34	Normal Alkane C34	100.408	6490	1268	0.11	0.08
NC35	Normal Alkane C35	102.243	3986	914	0.07	0.06
NC36	Normal Alkane C36	104.200	4981	781	0.08	0.05
NC37	Normal Alkane C37	106.478	5939	950	0.10	0.06
NC38	Normal Alkane C38	108.884	2200	293	0.04	0.02
NC39	Normal Alkane C39	111.760	1599	203	0.03	0.01
NC40	Normal Alkane C40	115.063	1413	251	0.02	0.02
NC41	Normal Alkane C41	119.414	1626	205	0.03	0.01

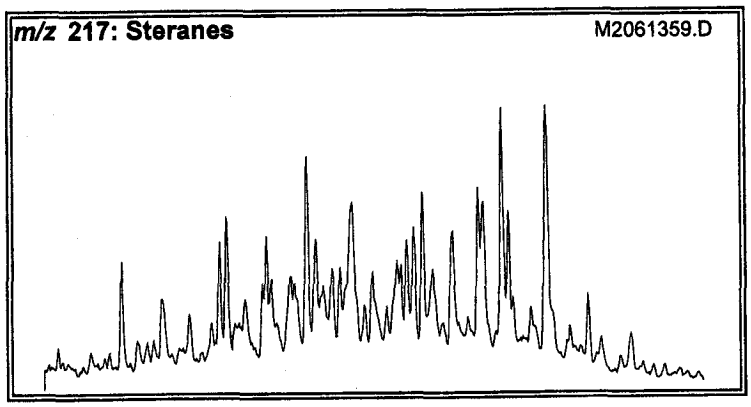
GC \ MS Saturate

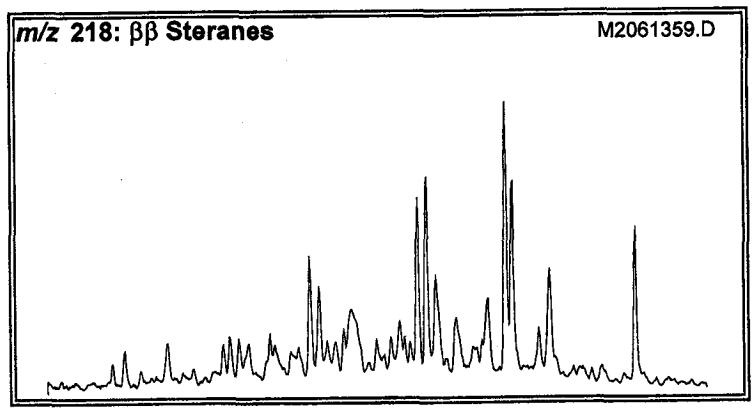
BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137138
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP280393
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	EAST SIMPSON 2	**Geologic Age:**	
Latitude:	70.9785	**Top Depth:**	7332.08 FT
Longitude:	-154.674	**Bottom Depth:**	FT







RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	20.5	D	
%C_{28} αββS (218)	41.4	D	
%C_{29} αββS (218)	38.0	D	
%C_{27} αααR (217)	17.8	D	
%C_{28} αααR (217)	31.4	D	
%C_{29} αααR (217)	50.8	D	
S/(S+R) (C_{29} ααα) (217)	0.36	M	0.55 (0.8%)
ββS/(ββS+ααR) (C29) (217)	0.29	M	0.70 (0.9%)
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.17		
C_{27}/C_{29} (αββS) (218)	0.54	D	
C_{28}/C_{29} (αββS) (218)	1.09	D	
Diaster/ααα Ster (C_{27}) (217)	0.78	M/D	1.00 (1.4%)
C30 Sterane Index (218)	2.43	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.05	D	
Norhopane/Hopane	1.25	D	
Bisnorhopane/Hopane	0.04		
Diahopane/Hopane	0.21	M/D	
Moretane/Hopane	0.10	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.18	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.14	M	
H32 S/(R+S) Homohopanes	0.58	M	0.60 (0.6%)
H35/H34 Homohopanes	0.33	D	
C24 Tetracyclic/Hopane	0.34	D	
C24 Tetracyclic/C26 Tricyclics	10.37	D	
C23/C24 Tricyclic terpanes	2.03	D	
C19/C23 Tricyclic terpanes	2.69	D	
C26/C25 Tricyclic terpanes	0.78	D	
(C28+C29 Tricyclics)/Ts		A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.08	D	
Tricyclic terpanes/Hopanes	0.17	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	2.27	M/D	1.00 (1.4%)

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity; B=Possible Biodegradation

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

GMC DATA REPORT 3 3 4

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M2061359.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*	62.235	3269	828	100.0	100.0
125	H30_125	C30 17α(H)-hopane (125)	76.471	1403	249	42.9	30.1
125	GCAR	γ-carotane					
125	BCAR	β-carotane					
177	L24BNR1	24,28-bisnorlupane isomer					
177	LA24BNR	17α(H)24,28-bisnorlupane					
177	LB24BNR	17β(H)24,28-bisnorlupane					
177	L24BNR2	24,28-bisnorlupane isomer					
177	L24NOR	24-norlupane					
191	TR19	C19 tricyclic terpane	44.481	7556	1607	231.1	194.1
191	TR20	C20 tricyclic terpane	47.557	5069	1162	155.1	140.3
191	TR21	C21 tricyclic terpane	50.611	1499	334	45.9	40.3
191	TR22	C22 tricyclic terpane	53.341	578	125	17.7	15.1
191	TR23	C23 tricyclic terpane	56.342	2812	707	86.0	85.4
191	TR24	C24 tricyclic terpane	57.902	1386	339	42.4	40.9
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	61.000	647	119	19.8	14.4
191	TR25B	C25 tricyclic terpane (b)	61.065	412	117	12.6	14.1
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	62.972	8584	2060	262.6	248.8
191	TR26A	C26 tricyclic terpane (a)	63.232	404	76	12.4	9.2
191	TR26B	C26 tricyclic terpane (b)	63.405	424	87	13.0	10.5
191	TR28A	C28 tricyclic terpane (a)					
191	TR28B	C28 tricyclic terpane (b)					
191	TR29A	C29 tricyclic terpane (a)					
191	TR29B	C29 tricyclic terpane (b)					
191	TS	Ts 18α(H)-trisnorhopane	70.815	2804	647	85.8	78.1
191	TM	Tm 17α(H)-trisnorhopane	71.704	12795	3181	391.4	384.2
191	TR30A	C30 tricyclic terpane (a)					
191	TR30B	C30 tricyclic terpane (b)					
191	H28	C28 17α18α21β(H)-bisnorhopane	73.762	1066	161	32.6	19.4
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.694	31067	7240	950.4	874.4
191	C29TS	C29 Ts 18α(H)-norneohopane	74.824	4215	965	128.9	116.5
191	DH30	C30 17α(H)-diahopane	75.171	5148	1074	157.5	129.7
191	M29	C29 normoretane	75.734	3283	680	100.4	82.1
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.492	24918	5532	762.3	668.1
191	M30	C30 moretane	77.294	2486	579	76.0	69.9
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.572	10085	2190	308.5	264.5
191	H31R	C31 22R 17α(H) hopane	78.811	7345	1562	224.7	188.6
191	GAM	gammacerane	79.114	1219	203	37.3	24.5

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M2061359.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.176	6192	1300	189.4	157.0
191	H32R	C32 22R 17α(H) hopane	80.544	4550	962	139.2	116.2
191	H33S	C33 22S 17α(H) hopane	82.061	2855	590	87.3	71.3
191	H33R	C33 22R 17α(H) hopane	82.537	2171	436	66.4	52.7
191	H34S	C34 22S 17α(H) hopane	84.011	1844	342	56.4	41.3
191	H34R	C34 22R 17α(H) hopane	84.596	1079	223	33.0	26.9
191	H35S	C35 22S 17α(H) hopane	86.004	602	110	18.4	13.3
191	H35R	C35 22R 17α(H) hopane	86.806	367	71	11.2	8.6
217	S21	C21 sterane	53.752	1591	310	48.7	37.4
217	DIA27S	C27 βα 20S diasterane	65.659	610	131	18.7	15.8
217	C27R	C27 αα 20R sterane	70.295	781	125	23.9	15.1
217	C28R	C28 αα 20R sterane	72.700	1383	170	42.3	20.5
217	C29S	C29 αα 20S sterane	73.350	1284	206	39.3	24.9
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.740	1940	318	59.3	38.4
217	C29BBS	C29 ββ 20S sterane	73.870	927	196	28.4	23.7
217	C29R	C29 αα 20R sterane	74.672	2236	321	68.4	38.8
218	C27ABBR	C27 ββ 20R sterane	69.580	892	169	27.3	20.4
218	C27ABBS	C27 ββ 20S sterane	69.775	751	128	23.0	15.5
218	C28ABBR	C28 ββ 20R sterane	71.877	1259	247	38.5	29.8
218	C28ABBS	C28 ββ 20S sterane	72.072	1516	274	46.4	33.1
218	C29ABBR	C29 ββ 20R sterane	73.740	1841	373	56.3	45.0
218	C29ABBS	C29 ββ 20S sterane	73.892	1392	268	42.6	32.4
218	C30ABBR	C30 ββ 20R sterane	75.301	112	20	3.4	2.4
218	C30ABBS	C30 ββ 20S sterane	75.366	91	20	2.8	2.4
259	D27S	C27 βα 20S diasterane	65.659	378	82	11.6	9.9
259	D27R	C27 βα 20R diasterane	66.525	350	52	10.7	6.3
259	D28SA	C28 βα 20S diasterane a	67.739	468	101	14.3	12.2
259	D28SB	C28 βα 20S diasterane b	67.890	573	105	17.5	12.7
259	D28RA	C28 βα 20R diasterane a	68.649	369	73	11.3	8.8
259	D28RB	C28 βα 20R diasterane b	68.735	364	76	11.1	9.2
259	D29S	C29 βα 20S diasterane	69.602	800	136	24.5	16.4
259	D29R	C29 βα 20R diasterane	70.534	939	113	28.7	13.6
259	C30TP1	C30 tetracyclic polyprenoid	75.582	280	53	8.6	6.4
259	C30TP2	C30 tetracyclic polyprenoid	75.691	166	28	5.1	3.4

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M2061359.D**

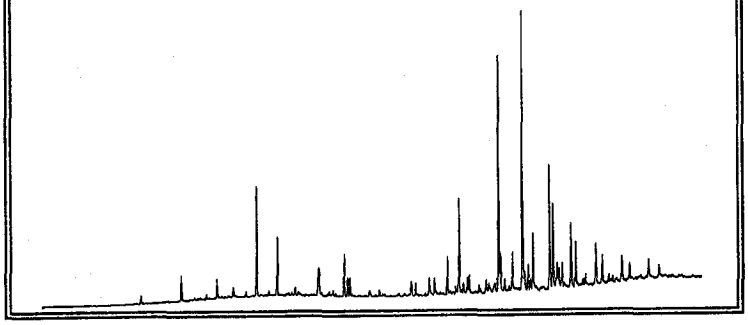
Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	20.5	19.1
%C_{28} αββS (218)	41.4	40.9
%C_{29} αββS (218)	38.0	40.0
C_{27}/C_{29} (αββS) (218)	0.54	0.48
C_{28}/C_{29} (αββS) (218)	1.09	1.02
C_{29}/C_{27} (αββS) (218)	1.85	2.09
%C_{27} αααR (217)	17.8	20.3
%C_{28} αααR (217)	31.4	27.6
%C_{29} αααR (217)	50.8	52.1
S/R (C_{29} ααα) (217)	0.57	0.64
S/(S+R) (C_{29} ααα) (217)	0.36	0.39
ββ/(αα+ββ) (C_{29}) (217)	0.45	0.49
αββS/αααR (C_{29}) (217)	0.41	
$(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29})$ (217)	0.17	0.21
Diaster/ααα Ster (C_{27}) (217)	0.78	1.05
Terpenoids		
C19/C23 Tricyclic terpanes	2.69	2.27
C23/C24 Tricyclic terpanes	2.03	2.09
C26/C25 Tricyclic terpanes	0.78	0.69
C24 Tetracyclic/C26 Tricyclics	10.37	12.64
C24 Tetracyclic/Hopane	0.34	0.37
Ts/Tm trisnorhopanes	0.22	0.20
Ts/(Ts+Tm) trisnorhopanes	0.18	0.17
C29Ts/C29 Hopane	0.14	0.13
Bisnorhopane/Hopane	0.04	0.03
Norhopane/Hopane	1.25	1.31
Diahopane/Hopane	0.21	0.19
Oleanane/Hopane		
Gammacerane/Hopane	0.05	0.04
Moretane/(Moretane+Hopane)	0.09	0.09
H32 S/(S+R) Homohopanes	0.58	0.57
H35/H34 Homohopanes	0.33	0.32
[Steranes]/[Hopanes]	0.08	0.06
[Tricyclic terpanes]/[Hopanes]	0.17	0.18
[Tricyclic terpanes]/[Steranes]	2.27	3.19

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

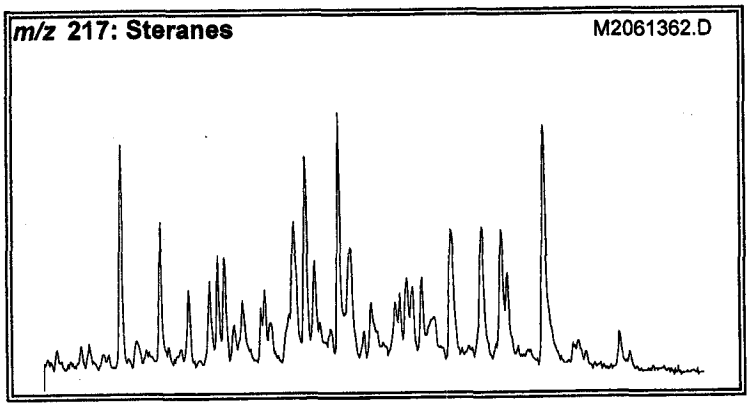
SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137821
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:		**Lab ID:**	CP281148
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	J.W. DALTON-1	**Geologic Age:**	
Latitude:		**Top Depth:**	8610 FT
Longitude:		**Bottom Depth:**	8620 FT

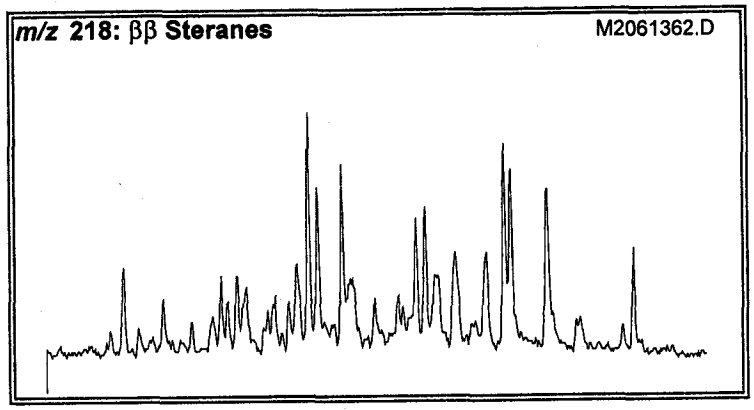
***m/z* 191: Tri- and Pentacyclics** M2061362.D



***m/z* 217: Steranes** M2061362.D



***m/z* 218: ββ Steranes** M2061362.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	33.9	D	
%C_{28} αββS (218)	29.2	D	
%C_{29} αββS (218)	36.9	D	
%C_{27} αααR (217)	31.5	D	
%C_{28} αααR (217)	27.6	D	
%C_{29} αααR (217)	40.9	D	
S/(S+R) (C_{29} ααα) (217)	0.38	M	0.55 (0.8%)
ββS/(ββS+ααR) (C29) (217)	0.24	M	0.70 (0.9%)
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.12		
C_{27}/C_{29} (αββS) (218)	0.92	D	
C_{28}/C_{29} (αββS) (218)	0.79	D	
Diaster/ααα Ster (C_{27}) (217)	0.76	M/D	1.00 (1.4%)
C30 Sterane Index (218)	6.85	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.13	D	
Norhopane/Hopane	0.86	D	
Bisnorhopane/Hopane	0.07		
Diahopane/Hopane	0.04	M/D	
Moretane/Hopane	0.23	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.30	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.17	M	
H32 S/(R+S) Homohopanes	0.58	M	0.60 (0.6%)
H35/H34 Homohopanes	0.78	D	
C24 Tetracyclic/Hopane	0.15	D	
C24 Tetracyclic/C26 Tricyclics	1.09	D	
C23/C24 Tricyclic terpanes	2.10	D	
C19/C23 Tricyclic terpanes		D	
C26/C25 Tricyclic terpanes	0.74	D	
(C28+C29 Tricyclics)/Ts	1.94	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.19	D	
Tricyclic terpanes/Hopanes	0.32	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	1.72	M/D	1.00 (1.4%)

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

GMC DATA REPORT 3 3 4

[2]A=Source Age; D=Depositional environment; M= Maturity; B=Possible Biodegradation

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M2061362.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*				0.0	0.0
125	H30_125	C30 17α(H)-hopane (125)	76.470	225	42		
125	GCAR	γ-carotane					
125	BCAR	β-carotane					
177	L24BNR1	24,28-bisnorlupane isomer					
177	LA24BNR	17α(H)24,28-bisnorlupane					
177	LB24BNR	17β(H)24,28-bisnorlupane					
177	L24BNR2	24,28-bisnorlupane isomer					
177	L24NOR	24-norlupane					
191	TR19	C19 tricyclic terpane					
191	TR20	C20 tricyclic terpane	47.514	125	28		
191	TR21	C21 tricyclic terpane	50.590	378	88		
191	TR22	C22 tricyclic terpane	53.298	307	67		
191	TR23	C23 tricyclic terpane	56.319	1607	375		
191	TR24	C24 tricyclic terpane	57.879	767	198		
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	60.978	458	93		
191	TR25B	C25 tricyclic terpane (b)	61.043	282	90		
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	62.928	597	145		
191	TR26A	C26 tricyclic terpane (a)	63.210	285	64		
191	TR26B	C26 tricyclic terpane (b)	63.383	261	64		
191	TR28A	C28 tricyclic terpane (a)	68.063	313	49		
191	TR28B	C28 tricyclic terpane (b)	68.410	189	44		
191	TR29A	C29 tricyclic terpane (a)	69.428	333	60		
191	TR29B	C29 tricyclic terpane (b)	69.818	267	57		
191	TS	Ts 18α(H)-trisnorhopane	70.793	568	130		
191	TM	Tm 17α(H)-trisnorhopane	71.681	1321	323		
191	TR30A	C30 tricyclic terpane (a)	72.028	169	34		
191	TR30B	C30 tricyclic terpane (b)	72.461	263	61		
191	H28	C28 17α18α21β(H)-bisnorhopane	73.761	273	45		
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.671	3491	808		
191	C29TS	C29 Ts 18α(H)-norneohopane	74.801	582	129		
191	DH30	C30 17α(H)-diahopane	75.148	168	41		
191	M29	C29 normoretane	75.712	569	131		
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.470	4082	958		
191	M30	C30 moretane	77.272	940	193		
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.550	2037	428		
191	H31R	C31 22R 17α(H) hopane	78.788	1570	296		
191	GAM	gammacerane	79.092	547	92		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M2061362.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.175	1084	221		
191	H32R	C32 22R 17α(H) hopane	80.522	801	159		
191	H33S	C33 22S 17α(H) hopane	82.060	702	141		
191	H33R	C33 22R 17α(H) hopane	82.537	449	96		
191	H34S	C34 22S 17α(H) hopane	83.988	486	89		
191	H34R	C34 22R 17α(H) hopane	84.573	273	57		
191	H35S	C35 22S 17α(H) hopane	86.003	365	65		
191	H35R	C35 22R 17α(H) hopane	86.783	230	43		
217	S21	C21 sterane	53.710	429	86		
217	DIA27S	C27 βα 20S diasterane	65.636	456	103		
217	C27R	C27 αα 20R sterane	70.273	597	117		
217	C28R	C28 αα 20R sterane	72.656	524	64		
217	C29S	C29 αα 20S sterane	73.306	476	65		
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.718	416	64		
217	C29BBS	C29 ββ 20S sterane	73.870	239	44		
217	C29R	C29 αα 20R sterane	74.628	776	112		
218	C27ABBR	C27 ββ 20R sterane	69.558	407	84		
218	C27ABBS	C27 ββ 20S sterane	69.753	313	58		
218	C28ABBR	C28 ββ 20R sterane	71.855	224	46		
218	C28ABBS	C28 ββ 20S sterane	72.050	270	50		
218	C29ABBR	C29 ββ 20R sterane	73.718	352	72		
218	C29ABBS	C29 ββ 20S sterane	73.870	341	63		
218	C30ABBR	C30 ββ 20R sterane	75.257	52	11		
218	C30ABBS	C30 ββ 20S sterane	75.343	68	12		
259	D27S	C27 βα 20S diasterane	65.636	264	59		
259	D27R	C27 βα 20R diasterane	66.481	165	39		
259	D28SA	C28 βα 20S diasterane a	67.716	111	24		
259	D28SB	C28 βα 20S diasterane b	67.868	127	27		
259	D28RA	C28 βα 20R diasterane a	68.626	79	17		
259	D28RB	C28 βα 20R diasterane b	68.713	66	16		
259	D29S	C29 βα 20S diasterane	69.580	260	46		
259	D29R	C29 βα 20R diasterane	70.533	178	28		
259	C30TP1	C30 tetracyclic polyprenoid	75.582	42	11		
259	C30TP2	C30 tetracyclic polyprenoid	75.668	56	11		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M2061362.D**

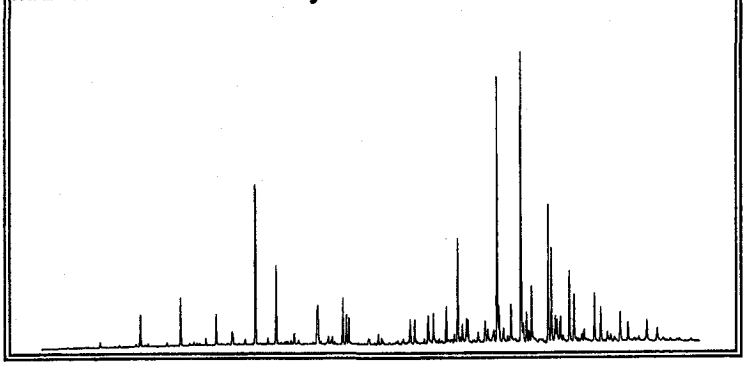
Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	33.9	33.9
%C_{28} αββS (218)	29.2	29.2
%C_{29} αββS (218)	36.9	36.8
C_{27}/C_{29} (αββS) (218)	0.92	0.92
C_{28}/C_{29} (αββS) (218)	0.79	0.79
C_{29}/C_{27} (αββS) (218)	1.09	1.09
%C_{27} αααR (217)	31.5	39.9
%C_{28} αααR (217)	27.6	21.8
%C_{29} αααR (217)	40.9	38.2
S/R (C_{29} ααα) (217)	0.61	0.58
S/(S+R) (C_{29} ααα) (217)	0.38	0.37
ββ/(αα+ββ) (C_{29}) (217)	0.34	0.38
αββS/αααR (C_{29}) (217)	0.31	
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.12	0.15
Diaster/ααα Ster (C_{27}) (217)	0.76	0.88
Terpenoids		
C19/C23 Tricyclic terpanes		
C23/C24 Tricyclic terpanes	2.10	1.89
C26/C25 Tricyclic terpanes	0.74	0.70
C24 Tetracyclic/C26 Tricyclics	1.09	1.13
C24 Tetracyclic/Hopane	0.15	0.15
Ts/Tm trisnorhopanes	0.43	0.40
Ts/(Ts+Tm) trisnorhopanes	0.30	0.29
C29Ts/C29 Hopane	0.17	0.16
Bisnorhopane/Hopane	0.07	0.05
Norhopane/Hopane	0.86	0.84
Diahopane/Hopane	0.04	0.04
Oleanane/Hopane		
Gammacerane/Hopane	0.13	0.10
Moretane/(Moretane+Hopane)	0.19	0.17
H32 S/(S+R) Homohopanes	0.58	0.58
H35/H34 Homohopanes	0.78	0.74
[Steranes]/[Hopanes]	0.19	0.14
[Tricyclic terpanes]/[Hopanes]	0.32	0.34
[Tricyclic terpanes]/[Steranes]	1.72	2.41

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

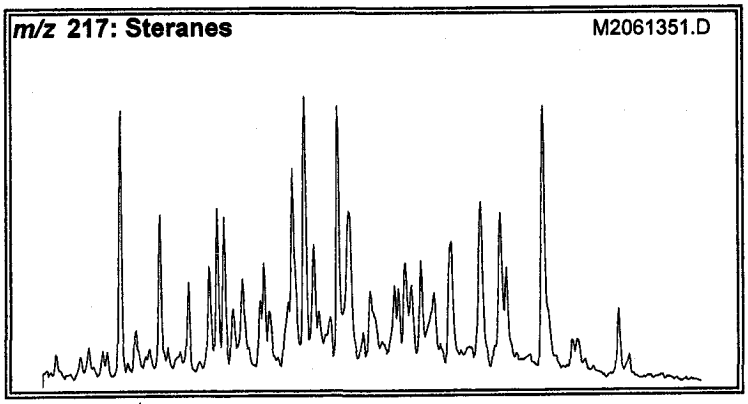
SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137820
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:		**Lab ID:**	CP281147
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	J.W. DALTON-1	**Geologic Age:**	
Latitude:		**Top Depth:**	8440 FT
Longitude:		**Bottom Depth:**	8450 FT

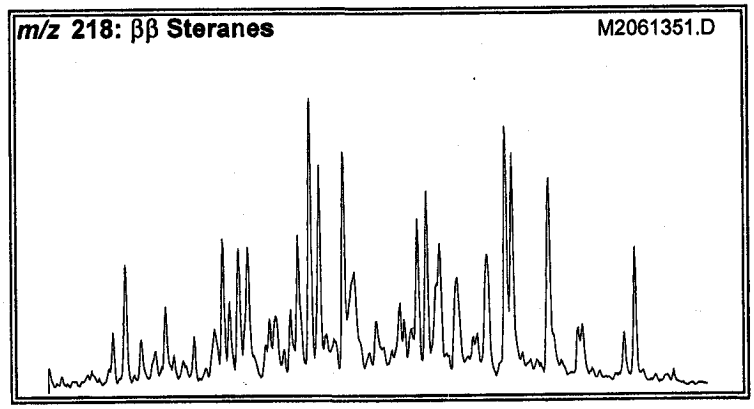
***m/z* 191: Tri- and Pentacyclics** M2061351.D



***m/z* 217: Steranes** M2061351.D



***m/z* 218: ββ Steranes** M2061351.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	35.1	D	
%C_{28} αββS (218)	30.2	D	
%C_{29} αββS (218)	34.8	D	
%C_{27} αααR (217)	35.2	D	
%C_{28} αααR (217)	25.4	D	
%C_{29} αααR (217)	39.5	D	
S/(S+R) (C_{29} ααα) (217)	0.43	M	0.55 (0.8%)
ββS/(ββS+ααR) (C29) (217)	0.24	M	0.70 (0.9%)
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.22		
C_{27}/C_{29} (αββS) (218)	1.01	D	
C_{28}/C_{29} (αββS) (218)	0.87	D	
Diaster/ααα Ster (C_{27}) (217)	0.80	M/D	1.00 (1.4%)
C30 Sterane Index (218)	6.83	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.11	D	
Norhopane/Hopane	0.91	D	
Bisnorhopane/Hopane	0.11		
Diahopane/Hopane	0.05	M/D	
Moretane/Hopane	0.21	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.26	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.16	M	
H32 S/(R+S) Homohopanes	0.58	M	0.60 (0.6%)
H35/H34 Homohopanes	0.77	D	
C24 Tetracyclic/Hopane	0.15	D	
C24 Tetracyclic/C26 Tricyclics	0.80	D	
C23/C24 Tricyclic terpanes	2.04	D	
C19/C23 Tricyclic terpanes	0.04	D	
C26/C25 Tricyclic terpanes	0.75	D	
(C28+C29 Tricyclics)/Ts	3.07	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.16	D	
Tricyclic terpanes/Hopanes	0.47	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	2.99	M/D	1.00 (1.4%)

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com **GMC DATA REPORT 3 3 4**

[2]A=Source Age; D=Depositional environment; M= Maturity; B=Possible Biodegradation

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M2061351.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*				0.0	0.0
125	H30_125	C30 17α(H)-hopane (125)	76.471	1122	263		
125	GCAR	γ-carotane					
125	BCAR	β-carotane					
177	L24BNR1	24,28-bisnorlupane isomer					
177	LA24BNR	17α(H)24,28-bisnorlupane					
177	LB24BNR	17β(H)24,28-bisnorlupane					
177	L24BNR2	24,28-bisnorlupane isomer					
177	L24NOR	24-norlupane					
191	TR19	C19 tricyclic terpane	44.460	637	125		
191	TR20	C20 tricyclic terpane	47.536	3243	716		
191	TR21	C21 tricyclic terpane	50.612	4480	1098		
191	TR22	C22 tricyclic terpane	53.319	2931	698		
191	TR23	C23 tricyclic terpane	56.321	14570	3646		
191	TR24	C24 tricyclic terpane	57.902	7155	1786		
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	61.001	3726	820		
191	TR25B	C25 tricyclic terpane (b)	61.066	3235	870		
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	62.951	4180	1050		
191	TR26A	C26 tricyclic terpane (a)	63.211	2757	663		
191	TR26B	C26 tricyclic terpane (b)	63.406	2444	596		
191	TR28A	C28 tricyclic terpane (a)	68.086	2845	550		
191	TR28B	C28 tricyclic terpane (b)	68.411	2224	541		
191	TR29A	C29 tricyclic terpane (a)	69.451	2945	624		
191	TR29B	C29 tricyclic terpane (b)	69.841	2843	677		
191	TS	Ts 18α(H)-trisnorhopane	70.816	3536	855		
191	TM	Tm 17α(H)-trisnorhopane	71.683	10217	2392		
191	TR30A	C30 tricyclic terpane (a)	72.029	2146	434		
191	TR30B	C30 tricyclic terpane (b)	72.463	2352	524		
191	H28	C28 17α18α21β(H)-bisnorhopane	73.763	2971	499		
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.673	25407	6090		
191	C29TS	C29 Ts 18α(H)-norneohopane	74.824	4010	836		
191	DH30	C30 17α(H)-diahopane	75.171	1468	326		
191	M29	C29 normoretane	75.713	3826	873		
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.471	28033	6664		
191	M30	C30 moretane	77.294	5817	1293		
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.551	13640	3150		
191	H31R	C31 22R 17α(H) hopane	78.811	9599	2155		
191	GAM	gammacerane	79.115	3197	603		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M2061351.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.176	7085	1628		
191	H32R	C32 22R 17α(H) hopane	80.523	5074	1076		
191	H33S	C33 22S 17α(H) hopane	82.061	5149	1100		
191	H33R	C33 22R 17α(H) hopane	82.538	3403	782		
191	H34S	C34 22S 17α(H) hopane	84.011	3319	657		
191	H34R	C34 22R 17α(H) hopane	84.575	2074	416		
191	H35S	C35 22S 17α(H) hopane	86.005	2525	463		
191	H35R	C35 22R 17α(H) hopane	86.806	1628	282		
217	S21	C21 sterane	53.731	4470	945		
217	DIA27S	C27 βα 20S diasterane	65.659	2893	667		
217	C27R	C27 αα 20R sterane	70.274	3607	675		
217	C28R	C28 αα 20R sterane	72.701	2601	334		
217	C29S	C29 αα 20S sterane	73.329	3084	433		
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.741	2726	404		
217	C29BBS	C29 ββ 20S sterane	73.871	1288	267		
217	C29R	C29 αα 20R sterane	74.651	4046	673		
218	C27ABBR	C27 ββ 20R sterane	69.581	2454	500		
218	C27ABBS	C27 ββ 20S sterane	69.776	1962	381		
218	C28ABBR	C28 ββ 20R sterane	71.856	1454	282		
218	C28ABBS	C28 ββ 20S sterane	72.051	1687	331		
218	C29ABBR	C29 ββ 20R sterane	73.719	2318	445		
218	C29ABBS	C29 ββ 20S sterane	73.871	1945	397		
218	C30ABBR	C30 ββ 20R sterane	75.279	420	82		
218	C30ABBS	C30 ββ 20S sterane	75.366	410	87		
259	D27S	C27 βα 20S diasterane	65.659	1655	409		
259	D27R	C27 βα 20R diasterane	66.504	1178	261		
259	D28SA	C28 βα 20S diasterane a	67.718	807	181		
259	D28SB	C28 βα 20S diasterane b	67.869	896	192		
259	D28RA	C28 βα 20R diasterane a	68.649	658	136		
259	D28RB	C28 βα 20R diasterane b	68.736	438	120		
259	D29S	C29 βα 20S diasterane	69.581	2007	330		
259	D29R	C29 βα 20R diasterane	70.534	1553	208		
259	C30TP1	C30 tetracyclic polyprenoid	75.583	296	68		
259	C30TP2	C30 tetracyclic polyprenoid	75.669	341	78		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M2061351.D**

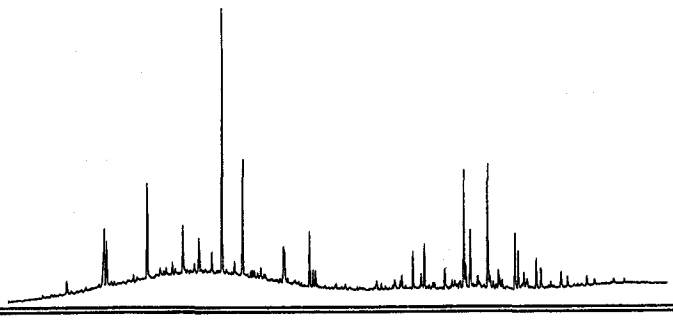
Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	35.1	34.4
%C_{28} αββS (218)	30.2	29.8
%C_{29} αββS (218)	34.8	35.8
C_{27}/C_{29} (αββS) (218)	1.01	0.96
C_{28}/C_{29} (αββS) (218)	0.87	0.83
C_{29}/C_{27} (αββS) (218)	0.99	1.04
%C_{27} αααR (217)	35.2	40.1
%C_{28} αααR (217)	25.4	19.9
%C_{29} αααR (217)	39.5	40.0
S/R (C_{29} ααα) (217)	0.76	0.64
S/(S+R) (C_{29} ααα) (217)	0.43	0.39
ββ/(αα+ββ) (C_{29}) (217)	0.36	0.38
αββS/αααR (C_{29}) (217)	0.32	
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.22	0.27
Diaster/ααα Ster (C_{27}) (217)	0.80	0.99
Terpenoids		
C19/C23 Tricyclic terpanes	0.04	0.03
C23/C24 Tricyclic terpanes	2.04	2.04
C26/C25 Tricyclic terpanes	0.75	0.74
C24 Tetracyclic/C26 Tricyclics	0.80	0.83
C24 Tetracyclic/Hopane	0.15	0.16
Ts/Tm trisnorhopanes	0.35	0.36
Ts/(Ts+Tm) trisnorhopanes	0.26	0.26
C29Ts/C29 Hopane	0.16	0.14
Bisnorhopane/Hopane	0.11	0.07
Norhopane/Hopane	0.91	0.91
Diahopane/Hopane	0.05	0.05
Oleanane/Hopane		
Gammacerane/Hopane	0.11	0.09
Moretane/(Moretane+Hopane)	0.17	0.16
H32 S/(S+R) Homohopanes	0.58	0.60
H35/H34 Homohopanes	0.77	0.69
[Steranes]/[Hopanes]	0.16	0.12
[Tricyclic terpanes]/[Hopanes]	0.47	0.49
[Tricyclic terpanes]/[Steranes]	2.99	4.16

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

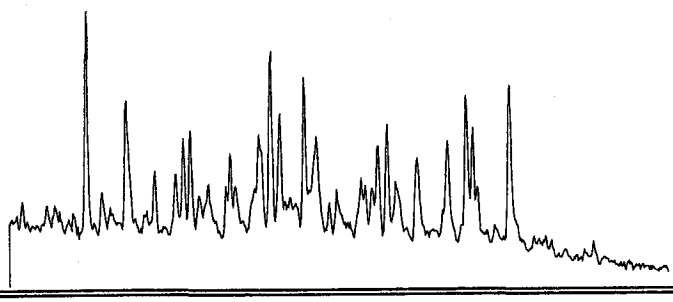
SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137819
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP281146
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:	PRUDHOE BAY	**Formation:**	
Well Name:	WEST KUP STATE 3-11-11	**Geologic Age:**	
Latitude:	70.3352	**Top Depth:**	10900 FT
Longitude:	-149.3067	**Bottom Depth:**	10910 FT

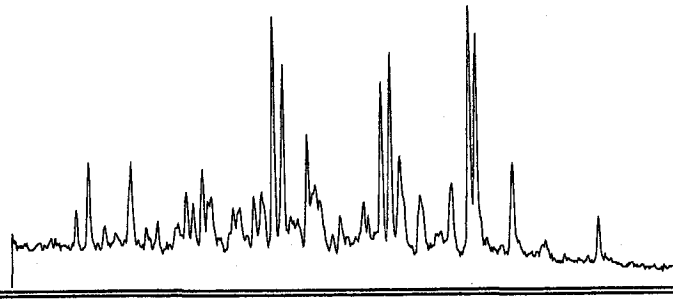
***m/z* 191: Tri- and Pentacyclics** M2061361.D



***m/z* 217: Steranes** M2061361.D



***m/z* 218: ββ Steranes** M2061361.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	30.3	D	
%C_{28} αββS (218)	33.6	D	
%C_{29} αββS (218)	36.1	D	
%C_{27} αααR (217)	33.3	D	
%C_{28} αααR (217)	27.8	D	
%C_{29} αααR (217)	38.9	D	
S/(S+R) (C_{29} ααα) (217)	0.41	M	0.55 (0.8%)
ββS/(ββS+ααR) (C29) (217)	0.35	M	0.70 (0.9%)
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.55		
C_{27}/C_{29} (αββS) (218)	0.84	D	
C_{28}/C_{29} (αββS) (218)	0.93	D	
Diaster/ααα Ster (C_{27}) (217)	1.13	M/D	1.00 (1.4%)
C30 Sterane Index (218)	1.84	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.06	D	
Norhopane/Hopane	0.88	D	
Bisnorhopane/Hopane	0.08		
Diahopane/Hopane	0.48	M/D	
Moretane/Hopane	0.16	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.46	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.23	M	
H32 S/(R+S) Homohopanes	0.61	M	0.60 (0.6%)
H35/H34 Homohopanes	0.64	D	
C24 Tetracyclic/Hopane	0.42	D	
C24 Tetracyclic/C26 Tricyclics	1.51	D	
C23/C24 Tricyclic terpanes	2.32	D	
C19/C23 Tricyclic terpanes	0.07	D	
C26/C25 Tricyclic terpanes	0.52	D	
(C28+C29 Tricyclics)/Ts	1.14	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.24	D	
Tricyclic terpanes/Hopanes	1.15	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	4.77	M/D	1.00 (1.4%)

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity; B=Possible Biodegradation

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M2061361.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*				0.0	0.0
125	H30_125	C30 17α(H)-hopane (125)	76.470	137	29		
125	GCAR	γ-carotane					
125	BCAR	β-carotane					
177	L24BNR1	24,28-bisnorlupane isomer					
177	LA24BNR	17α(H)24,28-bisnorlupane					
177	LB24BNR	17β(H)24,28-bisnorlupane					
177	L24BNR2	24,28-bisnorlupane isomer					
177	L24NOR	24-norlupane					
191	TR19	C19 tricyclic terpane	44.460	359	63		
191	TR20	C20 tricyclic terpane	47.536	1009	211		
191	TR21	C21 tricyclic terpane	50.612	1865	446		
191	TR22	C22 tricyclic terpane	53.320	1109	227		
191	TR23	C23 tricyclic terpane	56.320	5183	1250		
191	TR24	C24 tricyclic terpane	57.901	2233	545		
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	60.978	819	172		
191	TR25B	C25 tricyclic terpane (b)	61.065	575	150		
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	62.950	1100	261		
191	TR26A	C26 tricyclic terpane (a)	63.210	358	81		
191	TR26B	C26 tricyclic terpane (b)	63.383	372	77		
191	TR28A	C28 tricyclic terpane (a)	68.042	290	41		
191	TR28B	C28 tricyclic terpane (b)	68.410	129	30		
191	TR29A	C29 tricyclic terpane (a)	69.428	242	44		
191	TR29B	C29 tricyclic terpane (b)	69.840	170	38		
191	TS	Ts 18α(H)-trisnorhopane	70.815	731	177		
191	TM	Tm 17α(H)-trisnorhopane	71.682	863	211		
191	TR30A	C30 tricyclic terpane (a)	72.028	107	19		
191	TR30B	C30 tricyclic terpane (b)	72.462	117	27		
191	H28	C28 17α18α21β(H)-bisnorhopane	73.762	220	40		
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.672	2288	552		
191	C29TS	C29 Ts 18α(H)-norneohopane	74.802	519	111		
191	DH30	C30 17α(H)-diahopane	75.170	1232	271		
191	M29	C29 normoretane	75.712	242	54		
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.470	2591	583		
191	M30	C30 moretane	77.294	410	88		
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.550	1227	264		
191	H31R	C31 22R 17α(H) hopane	78.810	915	182		
191	GAM	gammacerane	79.092	144	27		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M2061361.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.175	677	143		
191	H32R	C32 22R 17α(H) hopane	80.522	424	95		
191	H33S	C33 22S 17α(H) hopane	82.060	356	73		
191	H33R	C33 22R 17α(H) hopane	82.537	263	51		
191	H34S	C34 22S 17α(H) hopane	83.989	233	46		
191	H34R	C34 22R 17α(H) hopane	84.574	161	28		
191	H35S	C35 22S 17α(H) hopane	86.004	152	25		
191	H35R	C35 22R 17α(H) hopane	86.784	101	22		
217	S21	C21 sterane	53.731	1717	340		
217	DIA27S	C27 βα 20S diasterane	65.637	541	117		
217	C27R	C27 αα 20R sterane	70.273	477	88		
217	C28R	C28 αα 20R sterane	72.679	398	48		
217	C29S	C29 αα 20S sterane	73.329	384	58		
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.719	473	82		
217	C29BBS	C29 ββ 20S sterane	73.870	302	65		
217	C29R	C29 αα 20R sterane	74.650	558	88		
218	C27ABBR	C27 ββ 20R sterane	69.558	481	104		
218	C27ABBS	C27 ββ 20S sterane	69.775	404	83		
218	C28ABBR	C28 ββ 20R sterane	71.855	372	76		
218	C28ABBS	C28 ββ 20S sterane	72.050	447	89		
218	C29ABBR	C29 ββ 20R sterane	73.719	555	110		
218	C29ABBS	C29 ββ 20S sterane	73.870	481	98		
218	C30ABBR	C30 ββ 20R sterane	75.279	34	6		
218	C30ABBS	C30 ββ 20S sterane	75.344	25	8		
259	D27S	C27 βα 20S diasterane	65.658	300	74		
259	D27R	C27 βα 20R diasterane	66.503	212	41		
259	D28SA	C28 βα 20S diasterane a	67.717	120	28		
259	D28SB	C28 βα 20S diasterane b	67.868	127	29		
259	D28RA	C28 βα 20R diasterane a	68.648	99	20		
259	D28RB	C28 βα 20R diasterane b	68.735	72	19		
259	D29S	C29 βα 20S diasterane	69.580	191	40		
259	D29R	C29 βα 20R diasterane	70.533	150	24		
259	C30TP1	C30 tetracyclic polyprenoid	75.560	68	12		
259	C30TP2	C30 tetracyclic polyprenoid	75.647	44	10		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M2061361.D**

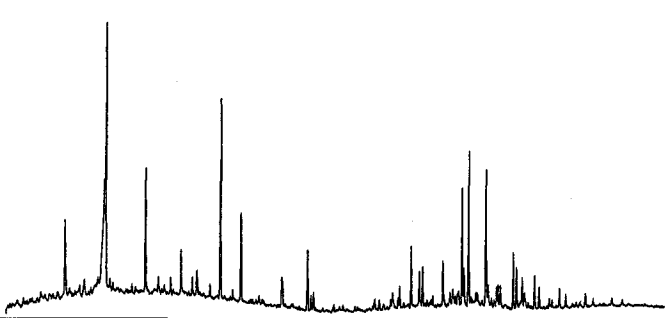
Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	30.3	30.7
%C_{28} αββS (218)	33.6	33.0
%C_{29} αββS (218)	36.1	36.3
C_{27}/C_{29} (αββS) (218)	0.84	0.85
C_{28}/C_{29} (αββS) (218)	0.93	0.91
C_{29}/C_{27} (αββS) (218)	1.19	1.18
%C_{27} αααR (217)	33.3	39.3
%C_{28} αααR (217)	27.8	21.4
%C_{29} αααR (217)	38.9	39.3
S/R (C_{29} ααα) (217)	0.69	0.66
S/(S+R) (C_{29} ααα) (217)	0.41	0.40
ββ/(αα+ββ) (C_{29}) (217)	0.45	0.50
αββS/αααR (C_{29}) (217)	0.54	
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.55	0.62
Diaster/ααα Ster (C_{27}) (217)	1.13	1.33
Terpenoids		
C19/C23 Tricyclic terpanes	0.07	0.05
C23/C24 Tricyclic terpanes	2.32	2.29
C26/C25 Tricyclic terpanes	0.52	0.49
C24 Tetracyclic/C26 Tricyclics	1.51	1.65
C24 Tetracyclic/Hopane	0.42	0.45
Ts/Tm trisnorhopanes	0.85	0.84
Ts/(Ts+Tm) trisnorhopanes	0.46	0.46
C29Ts/C29 Hopane	0.23	0.20
Bisnorhopane/Hopane	0.08	0.07
Norhopane/Hopane	0.88	0.95
Diahopane/Hopane	0.48	0.46
Oleanane/Hopane		
Gammacerane/Hopane	0.06	0.05
Moretane/(Moretane+Hopane)	0.14	0.13
H32 S/(S+R) Homohopanes	0.61	0.60
H35/H34 Homohopanes	0.64	0.64
[Steranes]/[Hopanes]	0.24	0.19
[Tricyclic terpanes]/[Hopanes]	1.15	1.19
[Tricyclic terpanes]/[Steranes]	4.77	6.27

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

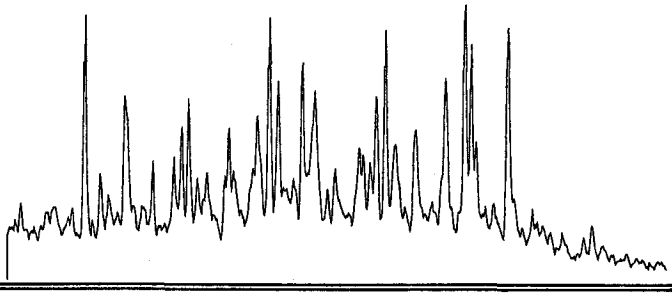
SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137818
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP281145
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:	PRUDHOE BAY	**Formation:**	Kekiktuk
Well Name:	WEST KUP STATE 3-11-11	**Geologic Age:**	
Latitude:	70.3352	**Top Depth:**	10890 FT
Longitude:	-149.3067	**Bottom Depth:**	10900 FT

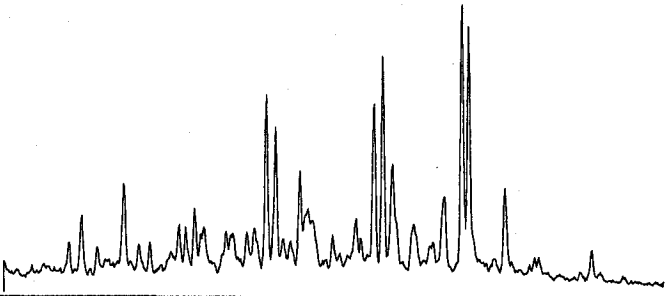
m/z 191: Tri- and Pentacyclics M2061349.D



m/z 217: Steranes M2061349.D



m/z 218: ββ Steranes M2061349.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	26.3	D	
%C_{28} αββS (218)	35.0	D	
%C_{29} αββS (218)	38.8	D	
%C_{27} αααR (217)	31.1	D	
%C_{28} αααR (217)	29.8	D	
%C_{29} αααR (217)	39.1	D	
S/(S+R) (C_{29} ααα) (217)	0.45	M	0.55 (0.8%)
ββS/(ββS+ααR) (C29) (217)	0.43	M	0.70 (0.9%)
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.45		
C_{27}/C_{29} (αββS) (218)	0.68	D	
C_{28}/C_{29} (αββS) (218)	0.90	D	
Diaster/ααα Ster (C_{27}) (217)	0.91	M/D	1.00 (1.4%)
C30 Sterane Index (218)	2.17	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.06	D	
Norhopane/Hopane	0.83	D	
Bisnorhopane/Hopane	0.19		
Diahopane/Hopane	0.99	M/D	
Moretane/Hopane	0.14	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.58	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.38	M	
H32 S/(R+S) Homohopanes	0.61	M	0.60 (0.6%)
H35/H34 Homohopanes	0.66	D	
C24 Tetracyclic/Hopane	0.39	D	
C24 Tetracyclic/C26 Tricyclics	1.76	D	
C23/C24 Tricyclic terpanes	2.22	D	
C19/C23 Tricyclic terpanes	0.49	D	
C26/C25 Tricyclic terpanes	0.63	D	
(C28+C29 Tricyclics)/Ts	1.31	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.31	D	
Tricyclic terpanes/Hopanes	1.24	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	4.02	M/D	1.00 (1.4%)

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity; B=Possible Biodegradation

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

GMC DATA REPORT 3 3 4

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M2061349.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*				0.0	0.0
125	H30_125	C30 17α(H)-hopane (125)	76.469	244	42		
125	GCAR	γ-carotane					
125	BCAR	β-carotane					
177	L24BNR1	24,28-bisnorlupane isomer					
177	LA24BNR	17α(H)24,28-bisnorlupane					
177	LB24BNR	17β(H)24,28-bisnorlupane					
177	L24BNR2	24,28-bisnorlupane isomer					
177	L24NOR	24-norlupane					
191	TR19	C19 tricyclic terpane	44.480	2367	446		
191	TR20	C20 tricyclic terpane	47.600	8383	1594		
191	TR21	C21 tricyclic terpane	50.632	3095	733		
191	TR22	C22 tricyclic terpane	53.340	1230	268		
191	TR23	C23 tricyclic terpane	56.340	4853	1188		
191	TR24	C24 tricyclic terpane	57.900	2183	523		
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	60.999	848	178		
191	TR25B	C25 tricyclic terpane (b)	61.064	529	157		
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	62.949	1521	357		
191	TR26A	C26 tricyclic terpane (a)	63.231	413	91		
191	TR26B	C26 tricyclic terpane (b)	63.404	449	108		
191	TR28A	C28 tricyclic terpane (a)	68.084	534	76		
191	TR28B	C28 tricyclic terpane (b)	68.409	378	70		
191	TR29A	C29 tricyclic terpane (a)	69.427	811	111		
191	TR29B	C29 tricyclic terpane (b)	69.839	411	79		
191	TS	Ts 18α(H)-trisnorhopane	70.814	1634	382		
191	TM	Tm 17α(H)-trisnorhopane	71.702	1168	260		
191	TR30A	C30 tricyclic terpane (a)	72.027	438	63		
191	TR30B	C30 tricyclic terpane (b)	72.482	439	86		
191	H28	C28 17α18α21β(H)-bisnorhopane	73.761	745	104		
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.671	3258	715		
191	C29TS	C29 Ts 18α(H)-norneohopane	74.823	1251	246		
191	DH30	C30 17α(H)-diahopane	75.169	3913	928		
191	M29	C29 normoretane	75.733	473	99		
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.469	3943	819		
191	M30	C30 moretane	77.293	562	124		
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.549	1590	334		
191	H31R	C31 22R 17α(H) hopane	78.809	1173	244		
191	GAM	gammacerane	79.113	224	47		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M2061349.D**

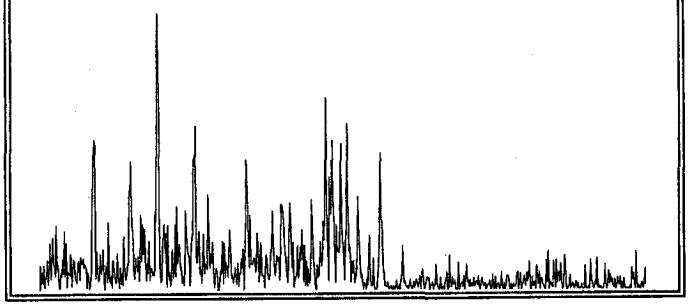
Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.174	894	195		
191	H32R	C32 22R 17α(H) hopane	80.521	576	127		
191	H33S	C33 22S 17α(H) hopane	82.059	480	114		
191	H33R	C33 22R 17α(H) hopane	82.536	321	77		
191	H34S	C34 22S 17α(H) hopane	84.009	410	81		
191	H34R	C34 22R 17α(H) hopane	84.594	244	47		
191	H35S	C35 22S 17α(H) hopane	86.003	244	44		
191	H35R	C35 22R 17α(H) hopane	86.783	187	33		
217	S21	C21 sterane	53.752	3030	595		
217	DIA27S	C27 βα 20S diasterane	65.657	839	182		
217	C27R	C27 αα 20R sterane	70.294	920	151		
217	C28R	C28 αα 20R sterane	72.699	880	100		
217	C29S	C29 αα 20S sterane	73.327	940	143		
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.739	1209	204		
217	C29BBS	C29 ββ 20S sterane	73.869	862	172		
217	C29R	C29 αα 20R sterane	74.649	1156	187		
218	C27ABBR	C27 ββ 20R sterane	69.579	862	181		
218	C27ABBS	C27 ββ 20S sterane	69.774	783	148		
218	C28ABBR	C28 ββ 20R sterane	71.876	887	171		
218	C28ABBS	C28 ββ 20S sterane	72.049	1043	219		
218	C29ABBR	C29 ββ 20R sterane	73.739	1321	271		
218	C29ABBS	C29 ββ 20S sterane	73.869	1156	249		
218	C30ABBR	C30 ββ 20R sterane	75.278	66	16		
218	C30ABBS	C30 ββ 20S sterane	75.364	66	16		
259	D27S	C27 βα 20S diasterane	65.657	472	107		
259	D27R	C27 βα 20R diasterane	66.502	380	72		
259	D28SA	C28 βα 20S diasterane a	67.737	278	58		
259	D28SB	C28 βα 20S diasterane b	67.867	307	55		
259	D28RA	C28 βα 20R diasterane a	68.647	259	50		
259	D28RB	C28 βα 20R diasterane b	68.734	191	46		
259	D29S	C29 βα 20S diasterane	69.579	460	85		
259	D29R	C29 βα 20R diasterane	70.532	484	60		
259	C30TP1	C30 tetracyclic polyprenoid	75.559	164	30		
259	C30TP2	C30 tetracyclic polyprenoid	75.668	127	26		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M2061349.D**

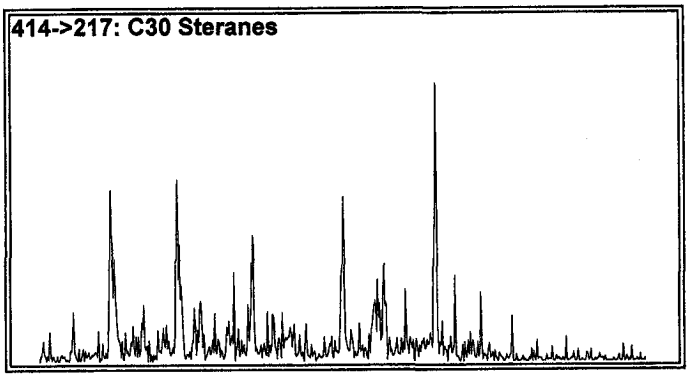
Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	26.3	24.0
%C_{28} αββS (218)	35.0	35.6
%C_{29} αββS (218)	38.8	40.4
C_{27}/C_{29} (αββS) (218)	0.68	0.59
C_{28}/C_{29} (αββS) (218)	0.90	0.88
C_{29}/C_{27} (αββS) (218)	1.48	1.68
%C_{27} αααR (217)	31.1	34.5
%C_{28} αααR (217)	29.8	22.8
%C_{29} αααR (217)	39.1	42.7
S/R (C_{29} ααα) (217)	0.81	0.76
S/(S+R) (C_{29} ααα) (217)	0.45	0.43
ββ/(αα+ββ) (C_{29}) (217)	0.50	0.53
αββS/αααR (C_{29}) (217)	0.75	
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.45	0.52
Diaster/ααα Ster (C_{27}) (217)	0.91	1.21
Terpenoids		
C19/C23 Tricyclic terpanes	0.49	0.38
C23/C24 Tricyclic terpanes	2.22	2.27
C26/C25 Tricyclic terpanes	0.63	0.59
C24 Tetracyclic/C26 Tricyclics	1.76	1.79
C24 Tetracyclic/Hopane	0.39	0.44
Ts/Tm trisnorhopanes	1.40	1.47
Ts/(Ts+Tm) trisnorhopanes	0.58	0.60
C29Ts/C29 Hopane	0.38	0.34
Bisnorhopane/Hopane	0.19	0.13
Norhopane/Hopane	0.83	0.87
Diahopane/Hopane	0.99	1.13
Oleanane/Hopane		
Gammacerane/Hopane	0.06	0.06
Moretane/(Moretane+Hopane)	0.12	0.13
H32 S/(S+R) Homohopanes	0.61	0.61
H35/H34 Homohopanes	0.66	0.60
[Steranes]/[Hopanes]	0.31	0.24
[Tricyclic terpanes]/[Hopanes]	1.24	1.21
[Tricyclic terpanes]/[Steranes]	4.02	5.07

Company:	CONOCOPHILLIPS	**Project #:**	06-598-A	
Country:	UNITED STATES	**Lab ID:**	CP281148	
Basin:		**Client ID:**	US137821	
Lease:		**Sample Type:**	PICKED CTGS	
Block:		**Sampling Point:**		
Field:		**Formation:**		
Well Name:	J.W. DALTON-1	**Geologic Age:**		
Latitude:		**Top Depth:**	8610	FT
Longitude:		**Bottom Depth:**	8620	FT

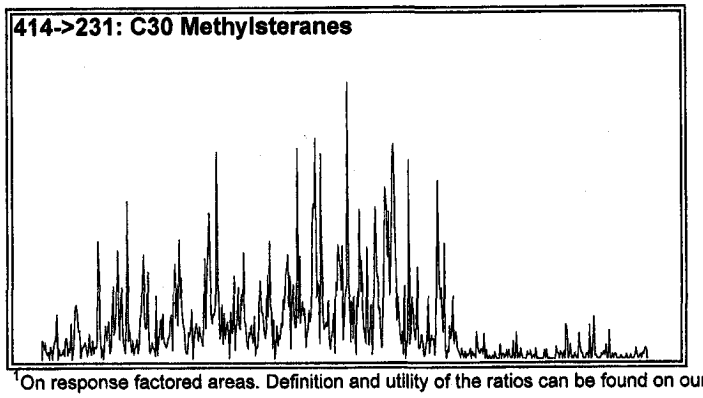
358->217: C26 Steranes MS060302.D



414->217: C30 Steranes



414->231: C30 Methylsteranes



RATIOS (on Area)[1]	Appl[2]	TEV[3]
Steranes		
%27 Steranes	D	
%28 Steranes	D	
%29 Steranes	D	
%27 Diasteranes	D	
%28 Diasteranes	D	
%29 Diasteranes	D	
C30 Sterane Index	D	
C30 iso/n-propyl sterane Index	A	
C27 αββ/(ααα+αββ)	M	
C28 αββ/(ααα+αββ)	M	
C29 αββ/(ααα+αββ)	M	
C30 αββ/(ααα+αββ)	M	
C27 S/(S+R)	M	
C28 S/(S+R)	M	
C29 S/(S+R)	M	
C30 S/(S+R)	M	
Diasteranes/Steranes		
24-Nordiacholestane ratio (NDR)	A	
24-Norcholestane ratio (NCR)	A	
21-Norcholestane ratio	D/M	
Dinosterane ratio	A	
4-Methyl sterane ratio	A	
Terpane Ratios		
Oleanane Index (%)	A	
DesA Oleanane Index (%)	A	
Gammacerane Index (%)	D	
Bicadinane Index (%)	A/D	
DiaHopane Index (%)	D	
TPP	D	

[1]On response factored areas. Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281148**
Top Depth:	**8610 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8620 FT**	**File Name:**	**MS060302.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3–>217.2: Internal Standard					
ISTD	5β-Cholane				
358.3–>217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.601	51958		
D26N24baR	13β,17α,24-nordiacholestane 20R	51.694	47012		
D26N27baS	13β,17α,27-nordiacholestane 20S	52.494	79260		
D26N24abS	13α,17β,24-nordiacholestane 20S	52.680	22452		
D26N24abR	13α,17β,24-nordiacholestane 20R	53.320	23339		
D26N27baR	13β,17α,27-nordiacholestane 20R	53.613	55315		
D26N27abS	13α,17β,27-nordiacholestane 20S	54.627	14597		
D26N27abR	13α,17β,27-nordiacholestane 20R	55.133	36031		
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	56.173	38734		
S26N24abbR	5α,14β,17β,24-norcholestane 20R	56.439	27676		
S26N24abbS	5α,14β,17β,24-norcholestane 20S	56.786	17651		
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.506	49808		
S26N21	21-norcholestane	57.692	57353		
S26N27baaR	5β,14α,17α,27-norcholestane 20S	57.826	15883		
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	57.959	32716		
S26N27abbR	5α,14β,17β,27-norcholestane 20R	58.146	39325		
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.466	23266		
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	59.132	35732		
372.3–>217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.573	342655		
D27baR	13β,17α-diacholestane 20R	55.880	213169		
D27abS	13α,17β-diacholestane 20S	56.839	93660		
D27abR	13α,17β-diacholestane 20R	57.559	98357		
S27aaaS	5α,14α,17α-cholestane 20S	60.172	167889		
S27abbR	5α,14β,17β-cholestane 20R	60.518	101849		
S27abbS	5α,14β,17β-cholestane 20S	60.812	82675		
S27aaaR	5α,14α,17α-cholestane 20R	61.585	214849		
386.4–>217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.719	178764		
D28baSB	13β,17α-diaergostane 20S (24S)	57.906	171611		
D28baRA	13β,17α-diaergostane 20R (24R)	59.185	113202		
D28baRB	13β,17α-diaergostane 20R (24R)	59.292	118645		
D28abS	13α,17β-diaergostane 20S	60.065	99659		
D28abRA	13α,17β-diaergostane 20R	60.945	47096		
D28abRB	13α,17β-diaergostane 20R	61.078	72842		
C28UNK9	C28 Unknown 9	61.825	68661		
S28aaaSA	5α,14α,17α-ergostane 20S	63.504	68325		
S28aaaSB	5α,14α,17α-ergostane 20S	63.664	52598		
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	64.011	156697		
S28abbS	5α,14β,17β-ergostane 20S	64.304	75459		
S28N21	21-norstigmastane	64.757	42204		
S28aaaR	5α,14α,17α-ergostane 20R	65.237	288419		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281148**
Top Depth:	**8610 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8620 FT**	**File Name:**	**MS060302.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4–>217.2: C29 Desmethylsteranes					
D29baS	13β,17α-diastigmastane 20S	60.545	481975		
D29baR	13β,17α-diastigmastane 20R	62.065	362890		
D29abS	13α,17β-diastigmastane 20S	62.705	139848		
D29abR	13α,17β-diastigmastane 20R	63.878	240317		
C29UNK5	C29 Unknown 5	64.597	116336		
S29aaaS	5α,14α,17α-stigmastane 20S	66.330	311844		
S29abbR	5α,14β,17β-stigmastane 20R	66.864	161841		
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	67.077	202715		
S29aaaR	5α,14α,17α-stigmastane 20R	68.303	399294		
414.4–>217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.731	52846		
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.838	27408		
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.384	73813		
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	64.811	13206		
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	64.971	21287		
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	66.250	46574		
DC30UNK7	dia-C30 Unknown 7				
DC30UNK8	dia-C30 Unknown 8				
DC30UNK8A	dia-C30 Unknown 8A				
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.516	53457		
C30UNK10	C30 Unknown 10				
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S				
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	69.316	25603		
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.370	19685		
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.530	29587		
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R				
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.809	69896		
C30UNK14	C30 Unknown 14				
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R				
C30UNK16	C30 Unknown 16				
386.4–>231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S				
DC28UNK16	dia-C28 Unknown 16				
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R				
DC28UNK3	dia-C28 Unknown 3				
DC28UNK17	dia-C28 Unknown 17				
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	58.679	23368		
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	59.959	19700		
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	61.745	22847		
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	62.118	30372		
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	62.385	26278		
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	62.891	30174		
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	63.024	17449		
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	63.104	33874		
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	63.371	20239		
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	64.278	28999		
XS28aaaR	5α,14α,17α-ergostane 20R				

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281148**
Top Depth:	**8610 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8620 FT**	**File Name:**	**MS060302.D**

Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4–>231.2: C29 Methylsteranes					
D293MbaSA	3β-Methyl-13β,17α-diaergostane 20S				
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S				
DC29UNK27	dia-C29 Unknown 27				
DC29UNK28	dia-C29 Unknown 28				
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R				
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R				
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R				
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R				
D294MabS	4α-Methyl-13α,17β-diaergostane 20S				
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R				
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R				
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S				
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R				
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S				
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S				
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S				
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R				
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R				
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R				
XS29aaaR	5α,14α,17α-stigmastane 20R				
414.4–>231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S				
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)				
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)				
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S				
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R				
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)				
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S				
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R				
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)				
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)				
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane				
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane				
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R				
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane				
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane				

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281148**
Top Depth:	**8610 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8620 FT**	**File Name:**	**MS060302.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
414.4->259.2: Tetracyclic polyprenoids and C30 3βpropylsteranes					
S303PaaaS	3β-Propyl-5α,14α,17α-cholestane 20S				
PP1	Tetracyclic polyprenoid	69.796	31046		
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	69.929	17439		
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S				
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R				
414.2->191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	63.478	38351		
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane				
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane				
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane				
TRITERP17A	C30 plant terpane				
DH30	Diahopane	68.970	65001		
TRITERP18	C30 unknown triterpane				
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	70.969	1085721		
H30N30	30-Norhomohopane	71.236	70607		
H30TS	18α,17β-Neohopane	71.609	124671		
H30aa	17α, 21α-Hopane	71.849	46520		
H30ba	17β, 21α-Hopane (Moretane)	72.169	142708		
GamA	Gammacerane-A	74.808	69585		
GamB	Gammacerane-B	74.942	12730		
414.2->313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)				
B30T1	Bicadinane T1				
B30R	Bicadinane R				

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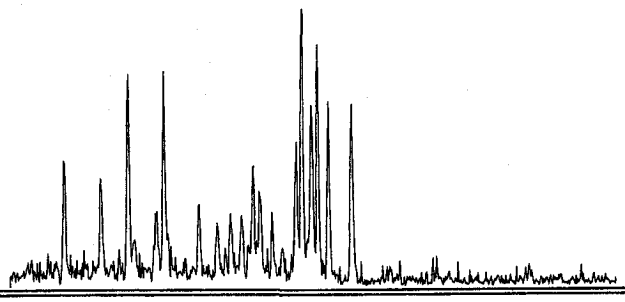
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281148**
Top Depth:	**8610 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8620 FT**	**File Name:**	**MS060302.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

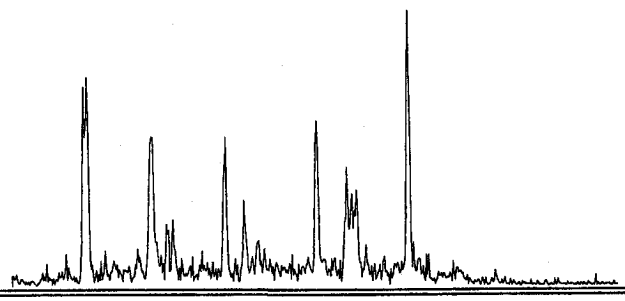
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	45.589	163364		
DesALUP	Des-A-Lupane				
DesATARAX	Des-A-Taraxastane	48.948	141803		
DesEHOP	Des-E-Hopane	50.388	505083		
410.4->218.2: Monounsaturated C30 Pentacyclic Triterpenoids					
Bicadinene	Bicadinene				
OL1318ene	Olean-13(18)-ene				
OL12ene	Olean-12-ene				
OL18ene	Olean-18-ene				
OL12ene18a	18α-Olean-12-ene				
Unk_Peak1	Unknown peak 1				
426.4->205.2: C31 Pentacyclic Triterpenoids					
H312Mab	C31 2a-Methylhopane	71.209	35629		
H31abS	C31 22S 2α-Methylhopane	74.168	173605		
H31abR	C31 22R 2α-Methylhopane	74.568	118810		
H313Mab	C31 3β-Methylhopane	74.995	32511		

Company:	CONOCOPHILLIPS	Project #:	06-598-A	
Country:	UNITED STATES	Lab ID:	CP281147	
Basin:		Client ID:	US137820	
Lease:		Sample Type:	PICKED CTGS	
Block:		Sampling Point:		
Field:		Formation:		
Well Name:	J.W. DALTON-1	Geologic Age:		
Latitude:		Top Depth:	8440	FT
Longitude:		Bottom Depth:	8450	FT

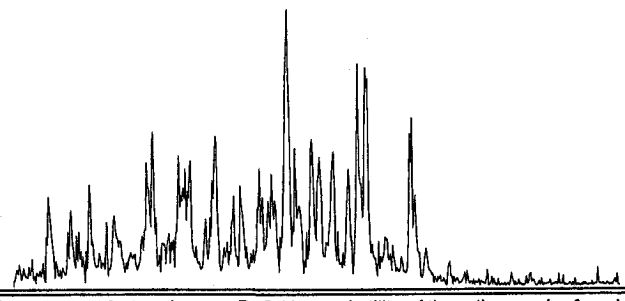
358->217: C26 Steranes MS060301.D



414->217: C30 Steranes



414->231: C30 Methylsteranes



RATIOS (on Area)[1]	Appl[2]	TEV[3]
Steranes		
%27 Steranes	D	
%28 Steranes	D	
%29 Steranes	D	
%27 Diasteranes	D	
%28 Diasteranes	D	
%29 Diasteranes	D	
C30 Sterane Index	D	
C30 iso/n-propyl sterane Index	A	
C27 αββ/(ααα+αββ)	M	
C28 αββ/(ααα+αββ)	M	
C29 αββ/(ααα+αββ)	M	
C30 αββ/(ααα+αββ)	M	
C27 S/(S+R)	M	
C28 S/(S+R)	M	
C29 S/(S+R)	M	
C30 S/(S+R)	M	
Diasteranes/Steranes		
24-Nordiacholestane ratio (NDR)	A	
24-Norcholestane ratio (NCR)	A	
21-Norcholestane ratio	D/M	
Dinosterane ratio	A	
4-Methyl sterane ratio	A	
Terpane Ratios		
Oleanane Index (%)	A	
DesA Oleanane Index (%)	A	
Gammacerane Index (%)	D	
Bicadinane Index (%)	A/D	
DiaHopane Index (%)	D	
TPP	D	

[1]On response factored areas. Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281147**
Top Depth:	**8440 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8450 FT**	**File Name:**	**MS060301.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->217.2: Internal Standard					
ISTD	5β-Cholane				
358.3->217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.601	22198		
D26N24baR	13β,17α,24-nordiacholestane 20R	51.694	18810		
D26N27baS	13β,17α,27-nordiacholestane 20S	52.520	34381		
D26N24abS	13α,17β,24-nordiacholestane 20S	52.707	9882		
D26N24abR	13α,17β,24-nordiacholestane 20R	53.374	16529		
D26N27baR	13β,17α,27-nordiacholestane 20R	53.587	33506		
D26N27abS	13α,17β,27-nordiacholestane 20S	54.627	12667		
D26N27abR	13α,17β,27-nordiacholestane 20R	55.160	9612		
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	56.253	18097		
S26N24abbR	5α,14β,17β,24-norcholestane 20R	56.413	14318		
S26N24abbS	5α,14β,17β,24-norcholestane 20S	56.786	10042		
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.532	24767		
S26N21	21-norcholestane	57.692	44387		
S26N27baaR	5β,14α,17α,27-norcholestane 20S	57.852	5372		
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	57.986	34330		
S26N27abbR	5α,14β,17β,27-norcholestane 20R	58.172	32676		
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.492	27344		
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	59.185	32274		
372.3->217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.600	177521		
D27baR	13β,17α-diacholestane 20R	55.906	107800		
D27abS	13α,17β-diacholestane 20S	56.866	54297		
D27abR	13α,17β-diacholestane 20R	57.532	62755		
S27aaaS	5α,14α,17α-cholestane 20S	60.225	81799		
S27abbR	5α,14β,17β-cholestane 20R	60.545	46696		
S27abbS	5α,14β,17β-cholestane 20S	60.812	40602		
S27aaaR	5α,14α,17α-cholestane 20R	61.611	85852		
386.4->217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.719	94185		
D28baSB	13β,17α-diaergostane 20S (24S)	57.906	91366		
D28baRA	13β,17α-diaergostane 20R (24R)	59.185	64558		
D28baRB	13β,17α-diaergostane 20R (24R)	59.292	66625		
D28abS	13α,17β-diaergostane 20S	60.065	49441		
D28abRA	13α,17β-diaergostane 20R	60.972	43567		
D28abRB	13α,17β-diaergostane 20R	61.078	35840		
C28UNK9	C28 Unknown 9	61.825	33461		
S28aaaSA	5α,14α,17α-ergostane 20S	63.558	29263		
S28aaaSB	5α,14α,17α-ergostane 20S	63.664	38872		
S28baaR	5β,14α,17α-ergostane 20R	63.931	13213		
S28abbR	5α,14β,17β-ergostane 20R	64.064	50751		
S28abbS	5α,14β,17β-ergostane 20S	64.331	42250		
S28N21	21-norstigmastane	64.784	21226		
S28aaaR	5α,14α,17α-ergostane 20R	65.317	93905		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281147**
Top Depth:	**8440 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8450 FT**	**File Name:**	**MS060301.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4–>217.2: C29 Desmethylsteranes					
D29baS	13β,17α-diastigmastane 20S	60.545	337891		
D29baR	13β,17α-diastigmastane 20R	62.065	218095		
D29abS	13α,17β-diastigmastane 20S	62.731	79284		
D29abR	13α,17β-diastigmastane 20R	63.904	144111		
C29UNK5	C29 Unknown 5	64.597	88870		
S29aaaS	5α,14α,17α-stigmastane 20S	66.330	154011		
S29abbR	5α,14β,17β-stigmastane 20R	66.917	82734		
S29baaR	5β,14α,17α-stigmastane 20R	67.024	25634		
S29abbS	5α,14β,17β-stigmastane 20S	67.103	79826		
S29aaaR	5α,14α,17α-stigmastane 20R	68.330	199644		
414.4–>217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.758	25523		
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.838	34949		
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.437	41801		
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	64.811	9626		
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	64.971	10618		
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	66.277	27203		
DC30UNK7	dia-C30 Unknown 7	66.730	15115		
DC30UNK8	dia-C30 Unknown 8	66.944	3892		
DC30UNK8A	dia-C30 Unknown 8A	67.103	9241		
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.543	32844		
C30UNK10	C30 Unknown 10	68.730	4033		
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S	68.996	4695		
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	69.290	20753		
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.423	13589		
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.530	19319		
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R	69.769	6814		
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.809	50418		
C30UNK14	C30 Unknown 14	70.943	3710		
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R	71.076	4919		
C30UNK16	C30 Unknown 16				
386.4–>231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S	56.119	6099		
DC28UNK16	dia-C28 Unknown 16				
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R	57.453	6708		
DC28UNK3	dia-C28 Unknown 3				
DC28UNK17	dia-C28 Unknown 17				
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	58.652	15855		
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	59.985	7885		
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	61.745	15425		
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	62.065	12588		
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	62.385	8849		
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	62.918	11819		
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	63.024	8376		
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	63.131	15833		
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	63.318	10174		
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	64.304	9705		
XS28aaaR	5α,14α,17α-ergostane 20R				

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281147**
Top Depth:	**8440 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8450 FT**	**File Name:**	**MS060301.D**

Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4->231.2: C29 Methylsteranes					
D293MbaSA	3β-Methyl-13β,17α-diaergostane 20S	59.159	4556		
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S	59.345	5919		
DC29UNK27	dia-C29 Unknown 27				
DC29UNK28	dia-C29 Unknown 28				
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R				
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R				
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S	61.745	12307		
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S	61.931	8084		
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R	63.184	5980		
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R	63.291	7582		
D294MabS	4α-Methyl-13α,17β-diaergostane 20S	64.091	7971		
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R	64.917	7923		
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R	65.051	8471		
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S	65.157	8701		
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R	65.637	3598		
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S	65.824	10317		
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S	66.170	7323		
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S	66.277	17382		
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R	66.544	13832		
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R	66.784	22983		
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R	67.930	18547		
XS29aaaR	5α,14α,17α-stigmastane 20R	68.330	6518		
414.4->231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S	67.290	7664		
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	67.770	38286		
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)	67.957	10009		
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S	68.063	7693		
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R	68.383	16862		
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.57	14615		
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	68.916	15553		
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	69.290	12060		
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.530	23627		
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.716	26746		
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane	70.196	5281		
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane	70.596	1739		
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	70.863	16068		
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane	70.943	7376		
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane	71.209	3793		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281147**
Top Depth:	**8440 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8450 FT**	**File Name:**	**MS060301.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
414.4->259.2: Tetracyclic polyprenoids and C30 3βpropylsteranes					
S303PaaaS	3β-Propyl-5α,14α,17α-cholestane 20S	69.636	5778		
PP1	Tetracyclic polyprenoid	69.796	8214		
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	69.956	11968		
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S	70.249	4481		
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R	70.969	9313		
414.2->191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	63.451	15635		
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane	66.810	3677		
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane	67.983	10388		
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane				
TRITERP17A	C30 plant terpane				
DH30	Diahopane	68.970	34544		
TRITERP18	C30 unknown triterpane				
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	70.996	649676		
H30N30	30-Norhomohopane	71.262	45533		
H30TS	18α,17β-Neohopane	71.636	66665		
H30aa	17α, 21α-Hopane	71.876	21782		
H30ba	17β, 21α-Hopane (Moretane)	72.169	66049		
GamA	Gammacerane-A	74.835	37250		
GamB	Gammacerane-B	75.022	5776		
414.2->313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)				
B30T1	Bicadinane T1				
B30R	Bicadinane R				

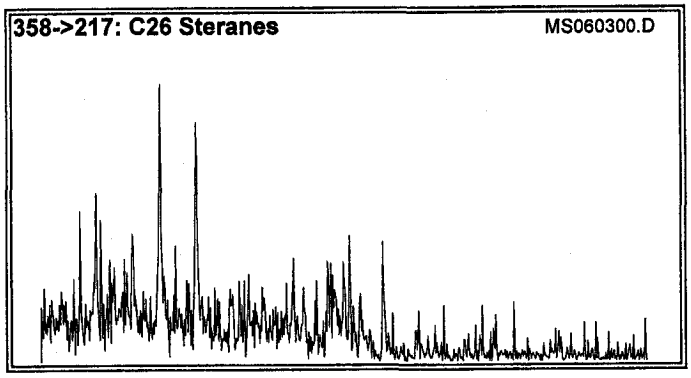
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Lab ID:**	**CP281147**
Top Depth:	**8440 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**8450 FT**	**File Name:**	**MS060301.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

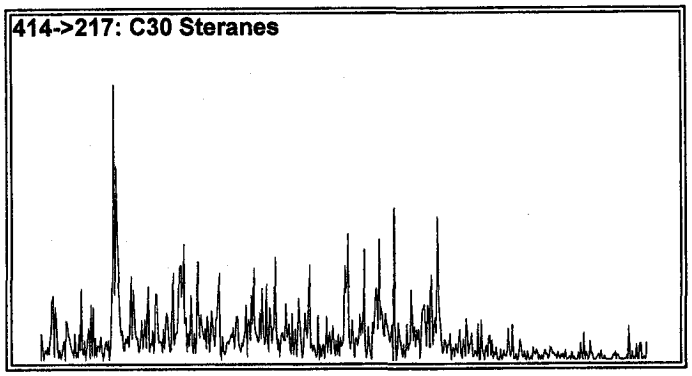
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	45.615	37570		
DesALUP	Des-A-Lupane				
DesATARAX	Des-A-Taraxastane	48.948	106349		
DesEHOP	Des-E-Hopane	50.388	358744		
410.4->218.2: Monounsaturated C30 Pentacyclic Triterpenoids					
Bicadinene	Bicadinene				
OL1318ene	Olean-13(18)-ene				
OL12ene	Olean-12-ene				
OL18ene	Olean-18-ene				
OL12ene18a	18α-Olean-12-ene				
Unk_Peak1	Unknown peak 1				
426.4->205.2: C31 Pentacyclic Triterpenoids					
H312Mab	C31 2a-Methylhopane	71.236	15693		
H31abS	C31 22S 2α-Methylhopane	74.222	84810		
H31abR	C31 22R 2α-Methylhopane	74.568	66715		
H313Mab	C31 3β-Methylhopane	74.995	18828		

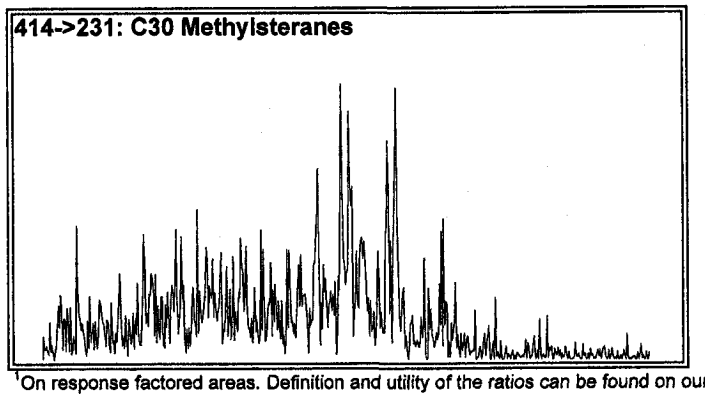
BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

SATURATE GCMSMS

Company:	CONOCOPHILLIPS	**Project #:**	06-598-A	
Country:	UNITED STATES	**Lab ID:**	CP281146	
Basin:	NORTH SLOPE	**Client ID:**	US137819	
Lease:		**Sample Type:**	PICKED CTGS	
Block:		**Sampling Point:**		
Field:	PRUDHOE BAY	**Formation:**		
Well Name:	WEST KUP STATE 3-11-11	**Geologic Age:**		
Latitude:	70.3352	**Top Depth:**	10900	FT
Longitude:	-149.3067	**Bottom Depth:**	10910	FT







RATIOS (on Area)[1]	Appl[2]	TEV[3]
Steranes		
%27 Steranes	D	
%28 Steranes	D	
%29 Steranes	D	
%27 Diasteranes	D	
%28 Diasteranes	D	
%29 Diasteranes	D	
C30 Sterane Index	D	
C30 iso/n-propyl sterane Index	A	
C27 αββ/(ααα+αββ)	M	
C28 αββ/(ααα+αββ)	M	
C29 αββ/(ααα+αββ)	M	
C30 αββ/(ααα+αββ)	M	
C27 S/(S+R)	M	
C28 S/(S+R)	M	
C29 S/(S+R)	M	
C30 S/(S+R)	M	
Diasteranes/Steranes		
24-Nordiacholestane ratio (NDR)	A	
24-Norcholestane ratio (NCR)	A	
21-Norcholestane ratio	D/M	
Dinosterane ratio	A	
4-Methyl sterane ratio	A	
Terpane Ratios		
Oleanane Index (%)	A	
DesA Oleanane Index (%)	A	
Gammacerane Index (%)	D	
Bicadinane Index (%)	A/D	
DiaHopane Index (%)	D	
TPP	D	

[1]On response factored areas. Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281146**
Top Depth:	**10900 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10910 FT**	**File Name:**	**MS060300.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->217.2: Internal Standard					
ISTD	5β-Cholane				
358.3->217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.639	69082		
D26N24baR	13β,17α,24-nordiacholestane 20R	51.706	67126		
D26N27baS	13β,17α,27-nordiacholestane 20S	52.532	120950		
D26N24abS	13α,17β,24-nordiacholestane 20S				
D26N24abR	13α,17β,24-nordiacholestane 20R				
D26N27baR	13β,17α,27-nordiacholestane 20R	53.598	107106		
D26N27abS	13α,17β,27-nordiacholestane 20S				
D26N27abR	13α,17β,27-nordiacholestane 20R				
S26N24aaaS	5α,14α,17α,24-norcholestane 20S				
S26N24abbR	5α,14β,17β,24-norcholestane 20R				
S26N24abbS	5α,14β,17β,24-norcholestane 20S				
S26N24aaaR	5α,14α,17α,24-norcholestane 20R				
S26N21	21-norcholestane				
S26N27baaR	5β,14α,17α,27-norcholestane 20S				
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	57.995	44183		
S26N27abbR	5α,14β,17β,27-norcholestane 20R	58.182	36229		
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.502	31545		
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	59.168	40829		
372.3->217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.611	454119		
D27baR	13β,17α-diacholestane 20R	55.917	294374		
D27abS	13α,17β-diacholestane 20S	56.903	120379		
D27abR	13α,17β-diacholestane 20R	57.542	129192		
S27aaaS	5α,14α,17α-cholestane 20S	60.314	159043		
S27abbR	5α,14β,17β-cholestane 20R	60.554	149678		
S27abbS	5α,14β,17β-cholestane 20S	60.847	115593		
S27aaaR	5α,14α,17α-cholestane 20R	61.593	199365		
386.4->217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.729	159481		
D28baSB	13β,17α-diaergostane 20S (24S)	57.915	222264		
D28baRA	13β,17α-diaergostane 20R (24R)	59.221	143848		
D28baRB	13β,17α-diaergostane 20R (24R)	59.328	134669		
D28abS	13α,17β-diaergostane 20S	60.101	132599		
D28abRA	13α,17β-diaergostane 20R	61.007	92909		
D28abRB	13α,17β-diaergostane 20R	61.140	52636		
C28UNK9	C28 Unknown 9	61.860	121865		
S28aaaSA	5α,14α,17α-ergostane 20S	63.566	45532		
S28aaaSB	5α,14α,17α-ergostane 20S	63.672	89266		
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	64.045	234659		
S28abbS	5α,14β,17β-ergostane 20S	64.312	152491		
S28N21	21-norstigmastane	64.765	46519		
S28aaaR	5α,14α,17α-ergostane 20R	65.325	173506		

GMC DATA REPORT 3 3 4

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281146**
Top Depth:	**10900 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10910 FT**	**File Name:**	**MS060300.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4–>217.2: C29 Desmethylsteranes					
D29baS	13β,17α-diastigmastane 20S	60.581	445967		
D29baR	13β,17α-diastigmastane 20R	62.100	386414		
D29abS	13α,17β-diastigmastane 20S	62.740	136528		
D29abR	13α,17β-diastigmastane 20R	63.912	163696		
C29UNK5	C29 Unknown 5	64.658	199643		
S29aaaS	5α,14α,17α-stigmastane 20S	66.338	224955		
S29abbR	5α,14β,17β-stigmastane 20R	66.924	225465		
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	67.110	305828		
S29aaaR	5α,14α,17α-stigmastane 20R	68.363	284015		
414.4–>217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.793	34199		
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.846	37329		
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.525	40400		
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S				
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S				
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	66.258	26551		
DC30UNK7	dia-C30 Unknown 7				
DC30UNK8	dia-C30 Unknown 8				
DC30UNK8A	dia-C30 Unknown 8A				
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.603	29752		
C30UNK10	C30 Unknown 10				
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S				
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	69.296	18985		
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.376	21302		
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R				
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R				
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.815	28458		
C30UNK14	C30 Unknown 14				
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R				
C30UNK16	C30 Unknown 16				
386.4–>231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S				
DC28UNK16	dia-C28 Unknown 16				
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R				
DC28UNK3	dia-C28 Unknown 3				
DC28UNK17	dia-C28 Unknown 17				
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S				
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R				
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S				
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R				
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S				
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S				
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R				
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R				
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S				
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R				
XS28aaaR	5α,14α,17α-ergostane 20R				

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281146**
Top Depth:	**10900 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10910 FT**	**File Name:**	**MS060300.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4->231.2: C29 Methylsteranes					
D293MbaSA	3β-Methyl-13β,17α-diaergostane 20S				
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S				
DC29UNK27	dia-C29 Unknown 27				
DC29UNK28	dia-C29 Unknown 28				
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R				
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R				
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R				
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R				
D294MabS	4α-Methyl-13α,17β-diaergostane 20S				
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R				
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R				
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S				
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R				
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S				
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S				
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S				
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R				
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R				
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R				
XS29aaaR	5α,14α,17α-stigmastane 20R				
414.4->231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S				
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	67.803	57330		
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)				
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S				
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R	68.390	63145		
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.576	67402		
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	68.896	55761		
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	69.296	27865		
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.536	61515		
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.749	73843		
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane				
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane				
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	70.922	32354		
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane				
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane				

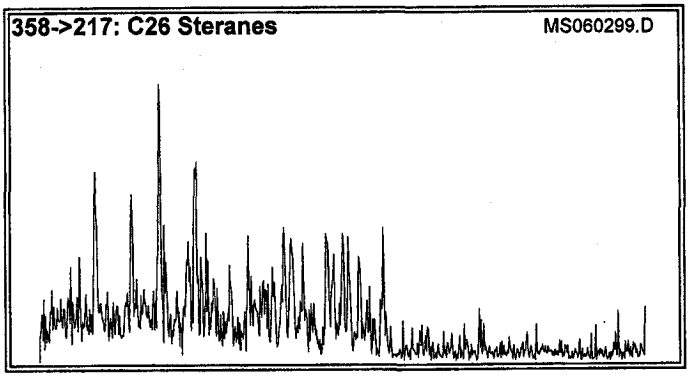
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281146**
Top Depth:	**10900 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10910 FT**	**File Name:**	**MS060300.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

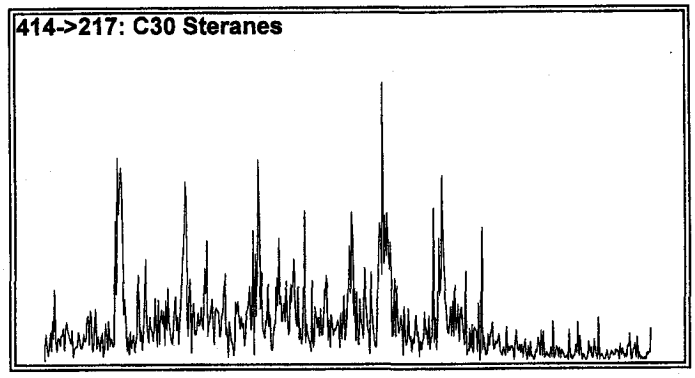
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
414.4->259.2: Tetracyclic polyprenoids and C30 3βpropylsteranes					
S303PaaaS	3β-Propyl-5α,14α,17α-cholestane 20S				
PP1	Tetracyclic polyprenoid				
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R				
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S				
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R				
414.2->191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	63.486	85624		
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane				
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane				
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane				
TRITERP17A	C30 plant terpane				
DH30	Diahopane	69.003	395030		
TRITERP18	C30 unknown triterpane				
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	71.002	713306		
H30N30	30-Norhomohopane	71.268	64865		
H30TS	18α,17β-Neohopane	71.695	43670		
H30aa	17α, 21α-Hopane	71.908	34314		
H30ba	17β, 21α-Hopane (Moretane)	72.174	82269		
GamA	Gammacerane-A	74.866	26840		
GamB	Gammacerane-B	75.026	10267		
414.2->313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)				
B30T1	Bicadinane T1				
B30R	Bicadinane R				

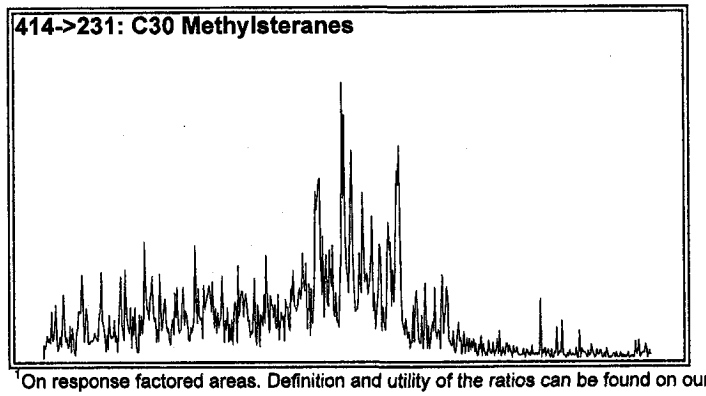
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281146**
Top Depth:	**10900 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10910 FT**	**File Name:**	**MS060300.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	45.656	359592		
DesALUP	Des-A-Lupane	45.789	102611		
DesATARAX	Des-A-Taraxastane	49.040	176052		
DesEHOP	Des-E-Hopane	50.426	1043712		
410.4->218.2: Monounsaturated C30 Pentacyclic Triterpenoids					
Bicadinene	Bicadinene				
OL1318ene	Olean-13(18)-ene				
OL12ene	Olean-12-ene				
OL18ene	Olean-18-ene				
OL12ene18a	18α-Olean-12-ene				
Unk_Peak1	Unknown peak 1				
426.4->205.2: C31 Pentacyclic Triterpenoids					
H312Mab	C31 2a-Methylhopane	71.215	49707		
H31abS	C31 22S 2α-Methylhopane	74.200	93689		
H31abR	C31 22R 2α-Methylhopane	74.573	70372		
H313Mab	C31 3β-Methylhopane	75.053	10790		

Company:	CONOCOPHILLIPS	Project #:	06-598-A	
Country:	UNITED STATES	Lab ID:	CP281145	
Basin:	NORTH SLOPE	Client ID:	US137818	
Lease:		Sample Type:	PICKED CTGS	
Block:		Sampling Point:		
Field:	PRUDHOE BAY	Formation:		
Well Name:	WEST KUP STATE 3-11-11	Geologic Age:		
Latitude:	70.3352	Top Depth:	10890	FT
Longitude:	-149.3067	Bottom Depth:	10900	FT







RATIOS (on Area)[1]	Appl[2]	TEV[3]
Steranes		
%27 Steranes	D	
%28 Steranes	D	
%29 Steranes	D	
%27 Diasteranes	D	
%28 Diasteranes	D	
%29 Diasteranes	D	
C30 Sterane Index	D	
C30 iso/n-propyl sterane Index	A	
C27 αββ/(ααα+αββ)	M	
C28 αββ/(ααα+αββ)	M	
C29 αββ/(ααα+αββ)	M	
C30 αββ/(ααα+αββ)	M	
C27 S/(S+R)	M	
C28 S/(S+R)	M	
C29 S/(S+R)	M	
C30 S/(S+R)	M	
Diasteranes/Steranes		
24-Nordiacholestane ratio (NDR)	A	
24-Norcholestane ratio (NCR)	A	
21-Norcholestane ratio	D/M	
Dinosterane ratio	A	
4-Methyl sterane ratio	A	
Terpane Ratios		
Oleanane Index (%)	A	
DesA Oleanane Index (%)	A	
Gammacerane Index (%)	D	
Bicadinane Index (%)	A/D	
DiaHopane Index (%)	D	
TPP	D	

[1]On response factored areas. Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281145**
Top Depth:	**10890 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10900 FT**	**File Name:**	**MS060299.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3–>217.2: Internal Standard					
ISTD	5β-Cholane				
358.3–>217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.639	108903		
D26N24baR	13β,17α,24-nordiacholestane 20R	51.732	82683		
D26N27baS	13β,17α,27-nordiacholestane 20S	52.532	162099		
D26N24abS	13α,17β,24-nordiacholestane 20S	52.692	60984		
D26N24abR	13α,17β,24-nordiacholestane 20R	53.411	84695		
D26N27baR	13β,17α,27-nordiacholestane 20R	53.651	147807		
D26N27abS	13α,17β,27-nordiacholestane 20S	54.637	58366		
D26N27abR	13α,17β,27-nordiacholestane 20R	55.197	70886		
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	56.263	67939		
S26N24abbR	5α,14β,17β,24-norcholestane 20R	56.476	98924		
S26N24abbS	5α,14β,17β,24-norcholestane 20S	56.823	71446		
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.516	90008		
S26N21	21-norcholestane	57.756	60508		
S26N27baaR	5β,14α,17α,27-norcholestane 20S	57.915	25267		
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	58.022	70004		
S26N27abbR	5α,14β,17β,27-norcholestane 20R	58.182	65603		
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.502	62779		
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	59.221	78547		
372.3–>217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.637	595298		
D27baR	13β,17α-diacholestane 20R	55.943	406392		
D27abS	13α,17β-diacholestane 20S	56.929	179659		
D27abR	13α,17β-diacholestane 20R	57.596	184742		
S27aaaS	5α,14α,17α-cholestane 20S	60.261	214731		
S27abbR	5α,14β,17β-cholestane 20R	60.554	250211		
S27abbS	5α,14β,17β-cholestane 20S	60.821	188449		
S27aaaR	5α,14α,17α-cholestane 20R	61.647	270892		
386.4–>217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.756	308473		
D28baSB	13β,17α-diaergostane 20S (24S)	57.942	320604		
D28baRA	13β,17α-diaergostane 20R (24R)	59.221	224713		
D28baRB	13β,17α-diaergostane 20R (24R)	59.328	255072		
D28abS	13α,17β-diaergostane 20S	60.128	208954		
D28abRA	13α,17β-diaergostane 20R	60.980	150817		
D28abRB	13α,17β-diaergostane 20R	61.114	112238		
C28UNK9	C28 Unknown 9	61.860	231603		
S28aaaSA	5α,14α,17α-ergostane 20S	63.592	145035		
S28aaaSB	5α,14α,17α-ergostane 20S	63.699	128672		
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	64.045	387624		
S28abbS	5α,14β,17β-ergostane 20S	64.365	303778		
S28N21	21-norstigmastane	64.818	72755		
S28aaaR	5α,14α,17α-ergostane 20R	65.351	300588		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281145**
Top Depth:	**10890 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10900 FT**	**File Name:**	**MS060299.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4–>217.2: C29 Desmethylsteranes					
D29baS	13β,17α-diastigmastane 20S	60.554	717602		
D29baR	13β,17α-diastigmastane 20R	62.127	641445		
D29abS	13α,17β-diastigmastane 20S	62.740	222147		
D29abR	13α,17β-diastigmastane 20R	63.939	343604		
C29UNK5	C29 Unknown 5	64.658	351539		
S29aaaS	5α,14α,17α-stigmastane 20S	66.364	545608		
S29abbR	5α,14β,17β-stigmastane 20R	66.924	577026		
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	67.137	639535		
S29aaaR	5α,14α,17α-stigmastane 20R	68.336	504436		
414.4–>217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.793	47442		
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.873	64101		
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.472	67973		
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	64.872	11371		
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	65.005	24382		
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	66.284	65958		
DC30UNK7	dia-C30 Unknown 7				
DC30UNK8	dia-C30 Unknown 8				
DC30UNK8A	dia-C30 Unknown 8A				
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.603	59642		
C30UNK10	C30 Unknown 10				
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S				
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	69.296	40978		
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.376	80618		
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.562	17274		
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R				
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.842	54412		
C30UNK14	C30 Unknown 14				
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R				
C30UNK16	C30 Unknown 16				
386.4–>231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S				
DC28UNK16	dia-C28 Unknown 16				
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R				
DC28UNK3	dia-C28 Unknown 3				
DC28UNK17	dia-C28 Unknown 17				
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S				
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R				
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S				
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R				
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S				
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S				
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R				
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R				
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S				
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R				
XS28aaaR	5α,14α,17α-ergostane 20R				

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281145**
Top Depth:	**10890 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10900 FT**	**File Name:**	**MS060299.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4–>231.2: C29 Methylsteranes					
D293MbaSA	3β-Methyl-13β,17α-diaergostane 20S				
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S				
DC29UNK27	dia-C29 Unknown 27				
DC29UNK28	dia-C29 Unknown 28				
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R				
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R				
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R				
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R				
D294MabS	4α-Methyl-13α,17β-diaergostane 20S				
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R				
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R	65.058	45934		
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S	65.165	42017		
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R	65.618	92330		
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S	65.858	66679		
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S				
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S				
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R				
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R	66.791	113777		
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R				
XS29aaaR	5α,14α,17α-stigmastane 20R				
414.4–>231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S				
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	67.830	124492		
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)				
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S				
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R	68.390	140595		
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.63	81127		
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	68.896	65166		
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	69.323	54010		
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.536	80503		
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.802	125557		
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane				
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane				
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	70.868	48121		
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane				
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane				

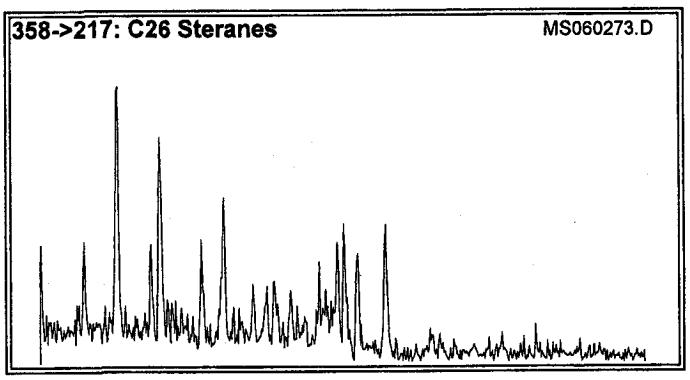
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281145**
Top Depth:	**10890 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10900 FT**	**File Name:**	**MS060299.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

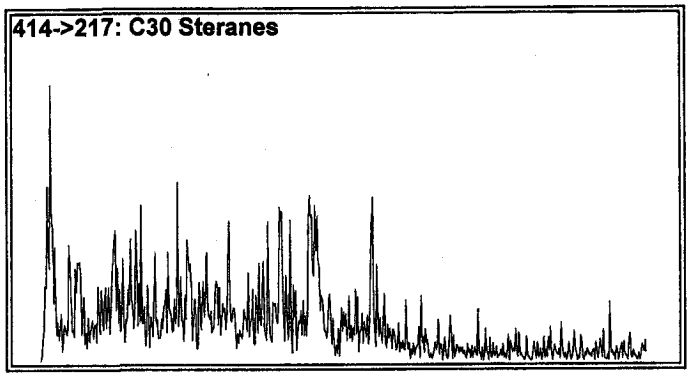
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
414.4–>259.2: Tetracyclic polyprenoids and C30 3βpropylsteranes					
S303PaaaS	3β-Propyl-5α,14α,17α-cholestane 20S	69.722	11030		
PP1	Tetracyclic polyprenoid	69.829	34786		
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	69.962	34916		
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S	70.309	20528		
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R	71.002	22334		
414.2–>191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	63.486	217199		
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane				
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane				
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane				
TRITERP17A	C30 plant terpane				
DH30	Diahopane	69.029	1000883		
TRITERP18	C30 unknown triterpane				
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	71.028	972329		
H30N30	30-Norhomohopane	71.295	96705		
H30TS	18α,17β-Neohopane	71.668	58361		
H30aa	17α, 21α-Hopane	71.934	29244		
H30ba	17β, 21α-Hopane (Moretane)	72.228	65375		
GamA	Gammacerane-A	74.893	51008		
GamB	Gammacerane-B	75.026	43092		
414.2–>313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)				
B30T1	Bicadinane T1				
B30R	Bicadinane R				

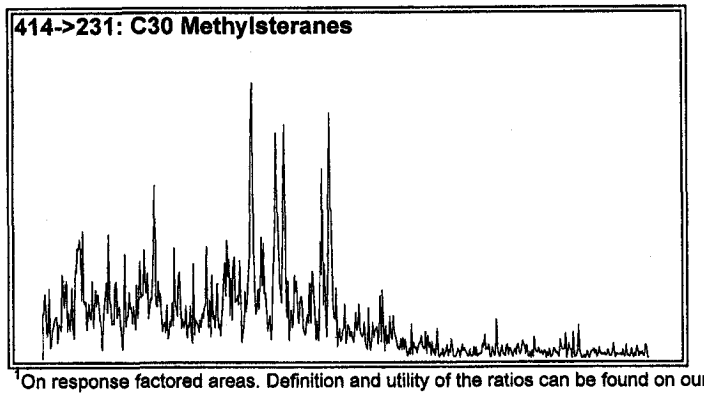
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Lab ID:**	**CP281145**
Top Depth:	**10890 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**10900 FT**	**File Name:**	**MS060299.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	45.656	356287		
DesALUP	Des-A-Lupane	45.736	144792		
DesATARAX	Des-A-Taraxastane	49.040	172151		
DesEHOP	Des-E-Hopane	50.426	1219305		
410.4->218.2: Monounsaturated C30 Pentacyclic Triterpenoids					
Bicadinene	Bicadinene				
OL1318ene	Olean-13(18)-ene				
OL12ene	Olean-12-ene				
OL18ene	Olean-18-ene				
OL12ene18a	18α-Olean-12-ene				
Unk_Peak1	Unknown peak 1				
426.4->205.2: C31 Pentacyclic Triterpenoids					
H312Mab	C31 2a-Methylhopane	71.295	76384		
H31abS	C31 22S 2α-Methylhopane	74.227	116252		
H31abR	C31 22R 2α-Methylhopane	74.600	87782		
H313Mab	C31 3β-Methylhopane	75.026	39365		

Company:	CONOCOPHILLIPS	Project #:	06-598-A	
Country:	UNITED STATES	Lab ID:	CP280393	
Basin:	NORTH SLOPE	Client ID:	US137138	
Lease:		Sample Type:	CORE	
Block:		Sampling Point:		
Field:		Formation:		
Well Name:	EAST SIMPSON 2	Geologic Age:		
Latitude:	70.9785	Top Depth:	7332.08	FT
Longitude:	-154.674	Bottom Depth:		FT







RATIOS (on Area)[1]		Appl[2]	TEV[3]
Steranes			
%27 Steranes	17.6	D	
%28 Steranes	40.9	D	
%29 Steranes	41.5	D	
%27 Diasteranes	19.8	D	
%28 Diasteranes	39.8	D	
%29 Diasteranes	40.4	D	
C30 Sterane Index	0.04	D	
C30 iso/n-propyl sterane Index		A	
C27 αββ/(ααα+αββ)	0.60	M	
C28 αββ/(ααα+αββ)	0.66	M	
C29 αββ/(ααα+αββ)	0.64	M	
C30 αββ/(ααα+αββ)	0.67	M	
C27 S/(S+R)	0.47	M	
C28 S/(S+R)	0.47	M	
C29 S/(S+R)	0.55	M	
C30 S/(S+R)	0.46	M	
Diasteranes/Steranes	0.86		
24-Nordiacholestane ratio (NDR)	0.28	A	
24-Norcholestane ratio (NCR)	0.36	A	
21-Norcholestane ratio	0.10	D/M	
Dinosterane ratio		A	
4-Methyl sterane ratio	0.01	A	
Terpane Ratios			
Oleanane Index (%)		A	
DesA Oleanane Index (%)	4.3	A	
Gammacerane Index (%)	0.6	D	
Bicadinane Index (%)		A/D	
DiaHopane Index (%)	3.1	D	
TPP		D	

[1]On response factored areas. Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Lab ID:**	**CP280393**
Top Depth:	**7332.08 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS060273.D**

Acquisition Parameters: SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3–>217.2: Internal Standard					
ISTD	5β-Cholane	49.934	1620599	100.0	100.0
358.3–>217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	51.027	17064	1.1	1.1
D26N24baR	13β,17α,24-nordiacholestane 20R	52.094	13940	0.9	0.9
D26N27baS	13β,17α,27-nordiacholestane 20S	52.920	44629	2.8	2.8
D26N24abS	13α,17β,24-nordiacholestane 20S	53.107	3209	0.2	0.2
D26N24abR	13α,17β,24-nordiacholestane 20R	53.747	14765	0.9	0.9
D26N27baR	13β,17α,27-nordiacholestane 20R	53.960	35922	2.2	2.2
D26N27abS	13α,17β,27-nordiacholestane 20S	55.000	14757	0.9	0.9
D26N27abR	13α,17β,27-nordiacholestane 20R	55.560	24499	1.5	1.5
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	56.626	9926	0.6	0.6
S26N24abbR	5α,14β,17β,24-norcholestane 20R	56.813	13333	0.8	0.8
S26N24abbS	5α,14β,17β,24-norcholestane 20S	57.213	9355	0.6	0.6
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.932	10374	0.6	0.6
S26N21	21-norcholestane	58.092	13782	0.9	0.9
S26N27baaR	5β,14α,17α,27-norcholestane 20S	58.226	8300	0.5	0.5
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	58.386	16978	1.0	1.0
S26N27abbR	5α,14β,17β,27-norcholestane 20R	58.546	19021	1.2	1.2
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.892	16654	1.0	1.0
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	59.585	23761	1.5	1.5
372.3–>217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	55.000	317153	19.6	17.1
D27baR	13β,17α-diacholestane 20R	56.306	214371	13.2	16.0
D27abS	13α,17β-diacholestane 20S	57.266	100320	6.2	4.1
D27abR	13α,17β-diacholestane 20R	57.959	94907	5.9	7.1
S27aaaS	5α,14α,17α-cholestane 20S	60.625	117652	7.3	6.4
S27abbR	5α,14β,17β-cholestane 20R	60.918	123241	7.6	10.3
S27abbS	5α,14β,17β-cholestane 20S	61.212	108171	6.7	10.3
S27aaaR	5α,14α,17α-cholestane 20R	62.011	120309	7.4	7.2
386.4–>217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	58.119	205906	12.7	17.8
D28baSB	13β,17α-diaergostane 20S (24S)	58.306	220735	13.6	20.2
D28baRA	13β,17α-diaergostane 20R (24R)	59.559	159629	9.9	12.5
D28baRB	13β,17α-diaergostane 20R (24R)	59.692	162080	10.0	16.0
D28abS	13α,17β-diaergostane 20S	60.492	133357	8.2	8.2
D28abRA	13α,17β-diaergostane 20R	61.372	86586	5.3	5.3
D28abRB	13α,17β-diaergostane 20R	61.452	72993	4.5	4.5
C28UNK9	C28 Unknown 9	62.251	94693	5.8	5.8
S28aaaSA	5α,14α,17α-ergostane 20S	63.958	64217	4.0	6.4
S28aaaSB	5α,14α,17α-ergostane 20S	64.064	65707	4.1	6.5
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	64.437	212837	13.1	29.2
S28abbS	5α,14β,17β-ergostane 20S	64.731	154955	9.6	23.0
S28N21	21-norstigmastane	65.184	23078	1.4	1.4
S28aaaR	5α,14α,17α-ergostane 20R	65.664	133773	8.3	14.4

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Lab ID:**	**CP280393**
Top Depth:	**7332.08 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS060273.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4–>217.2: C29 Desmethylsteranes					
D29baS	13β,17α-diastigmastane 20S	60.945	309684	19.1	34.9
D29baR	13β,17α-diastigmastane 20R	62.465	217387	13.4	32.8
D29abS	13α,17β-diastigmastane 20S	63.104	78902	4.9	4.9
D29abR	13α,17β-diastigmastane 20R	64.304	129806	8.0	8.0
C29UNK5	C29 Unknown 5	65.051	95196	5.9	5.9
S29aaaS	5α,14α,17α-stigmastane 20S	66.730	107005	6.6	16.1
S29abbR	5α,14β,17β-stigmastane 20R	67.317	119423	7.4	24.6
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	67.503	137958	8.5	26.9
S29aaaR	5α,14α,17α-stigmastane 20R	68.730	100384	6.2	13.2
414.4–>217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	63.158	4878	0.3	1.3
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	63.238	6817	0.4	1.0
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.837	5701	0.4	1.5
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	65.211	2843	0.2	0.2
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	65.344	3127	0.2	0.2
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	66.624	4561	0.3	0.3
DC30UNK7	dia-C30 Unknown 7				
DC30UNK8	dia-C30 Unknown 8				
DC30UNK8A	dia-C30 Unknown 8A				
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.916	5040	0.3	1.1
C30UNK10	C30 Unknown 10				
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S				
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	69.663	6889	0.4	2.5
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.796	5524	0.3	2.3
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.956	2024	0.1	0.1
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R				
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	71.236	4421	0.3	1.3
C30UNK14	C30 Unknown 14				
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R				
C30UNK16	C30 Unknown 16				
386.4–>231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S	56.493	12364	0.8	0.8
DC28UNK16	dia-C28 Unknown 16				
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R	57.852	12357	0.8	0.8
DC28UNK3	dia-C28 Unknown 3				
DC28UNK17	dia-C28 Unknown 17				
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	59.079	20243	1.2	1.2
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	60.385	8715	0.5	0.5
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	62.171	12653	0.8	0.8
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	62.465	11858	0.7	0.7
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	62.838	29010	1.8	1.8
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	63.318	8881	0.5	0.5
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	63.424	15739	1.0	1.0
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	63.558	9134	0.6	0.6
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	63.744	9759	0.6	0.6
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	64.704	10693	0.7	0.7
XS28aaaR	5α,14α,17α-ergostane 20R	65.770	7753	0.5	0.5

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Lab ID:**	**CP280393**
Top Depth:	**7332.08 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS060273.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
400.4->231.2: C29 Methylsteranes					
D293MbaSA	3β-Methyl-13β,17α-diaergostane 20S	59.532	13386	0.8	0.8
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S	59.745	11442	0.7	0.7
DC29UNK27	dia-C29 Unknown 27				
DC29UNK28	dia-C29 Unknown 28				
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R	61.052	9394	0.6	0.6
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R	61.185	13632	0.8	0.8
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S				
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R				
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R				
D294MabS	4α-Methyl-13α,17β-diaergostane 20S				
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R	65.291	6293	0.4	0.4
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R	65.424	11397	0.7	0.7
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S	65.557	8714	0.5	0.5
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R	65.984	14454	0.9	0.9
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S	66.250	21192	1.3	1.3
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S	66.597	6149	0.4	0.4
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S	66.704	9397	0.6	0.6
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R	67.024	9564	0.6	0.6
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R	67.130	25062	1.5	1.5
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R	68.303	8222	0.5	0.5
XS29aaaR	5α,14α,17α-stigmastane 20R				
414.4->231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S				
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	68.197	16213	1.0	1.0
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)				
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S				
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R	68.783	14894	0.9	0.9
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.996	9254	0.6	0.6
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	69.236	4177	0.3	0.3
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	69.690	5628	0.3	0.3
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.929	8838	0.5	0.5
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	70.116	12783	0.8	0.8
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane				
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane				
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	71.182	2078	0.1	0.1
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane				
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane				

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Lab ID:**	**CP280393**
Top Depth:	**7332.08 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS060273.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

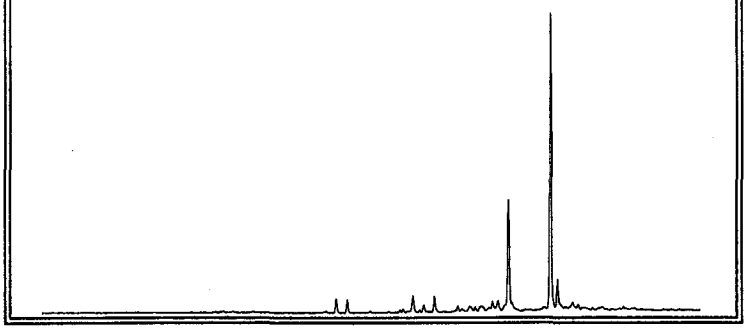
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
414.4–>259.2: Tetracyclic polyprenoids and C30 3βpropylsteranes					
S303PaaaS	3β-Propyl-5α,14α,17α-cholestane 20S				
PP1	Tetracyclic polyprenoid				
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R				
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S				
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R				
414.2–>191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	63.851	54916	3.4	3.4
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane	67.237	16073	1.0	1.0
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane	68.410	55128	3.4	3.4
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane				
TRITERP17A	C30 plant terpane				
DH30	Diahopane	69.396	193499	11.9	11.9
TRITERP18	C30 unknown triterpane				
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	71.396	994078	61.3	372.3
H30N30	30-Norhomohopane	71.662	41643	2.6	2.6
H30TS	18α,17β-Neohopane	72.036	33062	2.0	2.0
H30aa	17α, 21α-Hopane	72.302	30269	1.9	1.9
H30ba	17β, 21α-Hopane (Moretane)	72.595	60330	3.7	31.8
GamA	Gammacerane-A	75.261	20195	1.2	1.5
GamB	Gammacerane-B	75.421	8653	0.5	0.7
414.2–>313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)				
B30T1	Bicadinane T1				
B30R	Bicadinane R				

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Lab ID:**	**CP280393**
Top Depth:	**7332.08 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS060273.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

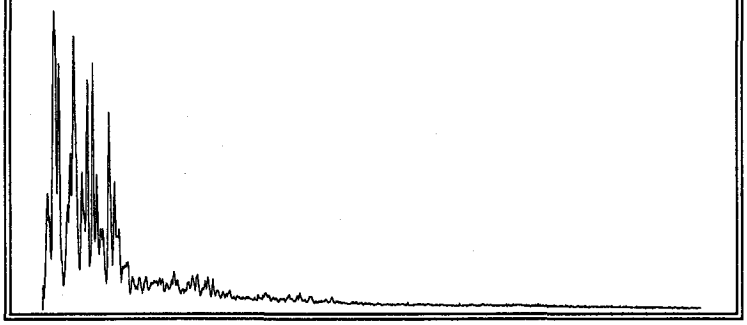
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	46.015	57575	3.6	3.6
DesALUP	Des-A-Lupane	46.149	36470	2.3	2.3
DesATARAX	Des-A-Taraxastane	49.401	19265	1.2	1.2
DesEHOP	Des-E-Hopane	50.814	1294240	79.9	79.9
410.4->218.2: Monounsaturated C30 Pentacyclic Triterpenoids					
Bicadinene	Bicadinene				
OL1318ene	Olean-13(18)-ene	68.490	15362	0.9	0.9
OL12ene	Olean-12-ene	68.890	1840	0.1	0.1
OL18ene	Olean-18-ene	69.076	4304	0.3	0.3
OL12ene18a	18α-Olean-12-ene	70.169	3618	0.2	0.2
Unk_Peak1	Unknown peak 1				
426.4->205.2: C31 Pentacyclic Triterpenoids					
H312Mab	C31 2a-Methylhopane	71.636	15285	0.9	0.9
H31abS	C31 22S 2α-Methylhopane	74.622	50125	3.1	3.1
H31abR	C31 22R 2α-Methylhopane	74.968	41710	2.6	2.6
H313Mab	C31 3β-Methylhopane	75.421	12469	0.8	0.8

Company:	CONOCOPHILLIPS	**Client ID:**	US137818
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP281145
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:	PRUDHOE BAY	**Formation:**	
Well Name:	WEST KUP STATE 3-11-11	**Geologic Age:**	
Latitude:	70.3352	**Top Depth:**	10890 FT
Longitude:	-149.3067	**Bottom Depth:**	10900 FT

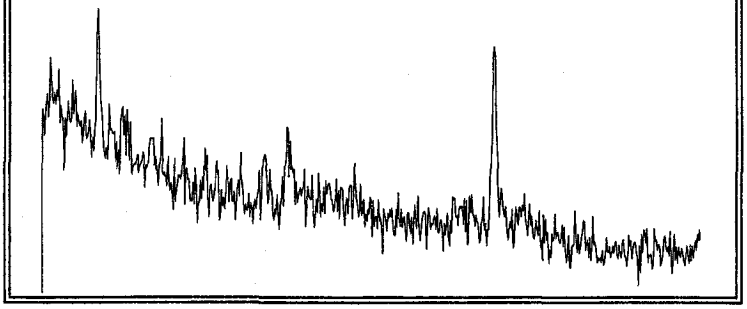
***m/z* 253: Monoaromatic steroids** M1061045.D



***m/z* 231: Triaromatic steroids** M1061045.D



***m/z* 245 Triaromatic Methylsteroids** M1061045.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS		M	1.0 (1.3%)
TAS #1 20/20+27		M	
TAS #2 21/21+28		M	
%26 TAS		D	
%27 TAS		D	
%28 TAS		D	
%29 TAS		D	
C28/C26 20S TAS			
C28/C27 20R TAS			
Dia/Regular C27 MAS			
%27 MAS		D	
%28 MAS		D	
%29 MAS		D	
(C21+C22)/Σ MAS		M	1.0 (1.3%)
TAS/(MAS+TAS)		M	
TA28/(TA28+MA29)		M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index		A	
C4/C3+C4 Mester		A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.85	M	
Rc(a) if Ro < 1.3 (Ro%)	0.88	M	
Rc(b) if Ro > 1.3 (Ro%)	1.79	M	
MPI-2	0.96	M	
DNR-1	9.24	M	
DNR-2	2.08	M	
TNR1	1.55	M	
TDE-1	5.78	M	
TDE-2	0.15	M	
MDR	8.16	M	
Rm (Ro%)	2.56	M	
MDR23	0.76	M	
MDR1	0.16	M	
DBT/Phenanthrene	0.24	D	

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M1061045.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)				0.0	0.0
92	16AB	C16 Alkyl Benzene	66.792	9179	1929		
92	17AB	C17 Alkyl Benzene	71.630	9297	2253		
92	18AB	C18 Alkyl Benzene	75.817	7734	1973		
92	1THIO92	Dimethyl dibenzothiophene 1	77.612	12861	2908		
92	2THIO92	Dimethyl dibenzothiophene 2	78.351	19246	3128		
92	19AB	C19 Alkyl Benzene	79.582	7312	1586		
92	20AB	C20 Alkyl Benzene	83.030	3813	949		
92	21AB	C21 Alkyl Benzene	86.232	2688	718		
92	22AB	C22 Alkyl Benzene	89.276	1777	424		
92	23AB	C23 Alkyl Benzene	92.144	1225	271		
92	PHYBz	Phytanyl Benzene	94.096	408	57		
92	24AB	C24 Alkyl Benzene	94.870	1064	208		
92	25AB	C25 Alkyl Benzene	97.474	658	118		
92	26AB	C26 Alkyl Benzene	99.990	365	86		
106	16ATM	C16 Alkyl Toluene (meta)	66.053	7077	1741		
106	16ATO	C16 Alkyl Toluene (ortho)	67.003	3794	791		
106	17ATM	C17 Alkyl Toluene (meta)	70.944	8951	2216		
106	17ATO	C17 Alkyl Toluene (ortho)	71.789	4280	1045		
106	18ATM	C18 Alkyl Toluene (meta)	75.184	7704	1833		
106	18ATO	C18 Alkyl Toluene (ortho)	75.976	3297	845		
106	1THIO106	Dimethyl dibenzothiophene 1	77.612	12750	2822		
106	2THIO106	Dimethyl dibenzothiophene 2	78.368	14769	2324		
106	19ATM	C19 Alkyl Toluene (meta)	78.967	9197	2119		
106	19ATO	C19 Alkyl Toluene (ortho)	79.670	6193	890		
106	20ATM	C20 Alkyl Toluene (meta)	82.415	4849	1203		
106	20ATO	C20 Alkyl Toluene (ortho)	83.154	1785	423		
106	21ATM	C21 Alkyl Toluene (meta)	85.669	3537	1059		
106	21ATO	C21 Alkyl Toluene (ortho)	86.373	10902	2027		
106	22ATM	C22 Alkyl Toluene (meta)	88.695	2941	542		
106	22ATO	C22 Alkyl Toluene (ortho)	89.417	11596	1233		
106	23ATM	C23 Alkyl Toluene (meta)					
106	23ATO	C23 Alkyl Toluene (ortho)					
106	24ATM	C24 Alkyl Toluene (meta)					
106	24ATO	C24 Alkyl Toluene (ortho)					
106	PHYTL	Phytanyl Toluene	95.908	36601	6935		
106	25ATM	C25 Alkyl Toluene (meta)					
106	25ATO	C25 Alkyl Toluene (ortho)					
106	26ATM	C26 Alkyl Toluene (meta)					
106	26ATO	C26 Alkyl Toluene (ortho)					
134	15AI	C15 Aryl Isoprenoids	60.934	353	72		
134	16AI	C16 Aryl Isoprenoids	66.106	650	121		
134	17AI	C17 Aryl Isoprenoids	70.751	404	66		
134	18AI	C18 Aryl Isoprenoids	74.920	1585	341		
134	19AI	C19 Aryl Isoprenoids	77.225	1941	362		
134	20AI	C20 Aryl Isoprenoids	81.042	1554	306		
134	21AI	C21 Aryl Isoprenoids					
134	22AI	C22 Aryl Isoprenoids					
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M1061045.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene	38.028	28582	4915		
142	1MN	1-Methylnaphthalene	39.260	21222	3588		
156	2EN	2-Ethylnaphthalene	46.209	8994	1414		
156	1EN	1-Ethylnaphthalene	46.297	1442	422		
156	26DMN	2,6-Dimethylnaphthalene	47.124	71648	12216		
156	27DMN	2,7-Dimethylnaphthalene	47.282	76288	13104		
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.267	144555	20232		
156	16DMN	1,6-Dimethylnaphthalene	48.513	112727	18768		
156	23DMN	2,3-Dimethylnaphthalene	49.710	10566	2516		
156	14DMN	1,4-Dimethylnaphthalene	49.798	60406	8681		
156	15DMN	1,5-Dimethylnaphthalene	49.903	16015	4025		
156	12DMN	1,2-Dimethylnaphthalene	50.871	13203	2108		
168	2MBP	2-Methylbiphenyl	46.666	704	108		
168	DPM	Diphenylmethane	48.936	7185	1211		
168	3MBP	3-Methylbiphenyl	53.369	169181	28696		
168	4MBP	4-Methylbiphenyl	54.038	80973	13637		
168	DBF	Dibenzofuran	55.463	70642	11214		
170	BB_EMN	Ethyl-methyl-Naphthalene	55.199	36251	4865		
170	AB_EMN	Ethyl-methyl-Naphthalene	56.413	13102	2094		
170	137TMN	1,3,7-Trimethylnaphthalene	56.870	81394	13890		
170	136TMN	1,3,6-Trimethylnaphthalene	57.239	130879	22338		
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.313	79475	12701		
170	236TMN	2,3,6-Trimethylnaphthalene	58.576	122791	22434		
170	127TMN	1,2,7-Trimethylnaphthalene	59.315	13806	2571		
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.474	94789	15359		
170	124TMN	1,2,4-Trimethylnaphthalene	60.406	4255	771		
170	125TMN	1,2,5-Trimethylnaphthalene	60.846	24593	4582		
178	PHEN	Phenanthrene	70.381	2532608	516144		
184	1357	1,3,5,7-Tetramethylnaphthalene	64.804	28642	5174		
184	1367	1,3,6,7-Tetramethylnaphthalene	65.948	51456	11028		
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.704	18328	3578		
184	1257	1,2,5,7-Tetramethylnaphthalene	66.898	11513	2375		
184	2367	2,3,6,7-Tetramethylnaphthalene	67.250	13244	2852		
184	1267	1,2,6,7-Tetramethylnaphthalene	67.690	10283	2204		
184	1237	1,2,3,7-Tetramethylnaphthalene	67.883	2881	669		
184	1236	1,2,3,6-Tetramethylnaphthalene	68.147	5829	1233		
184	1256	1,2,5,6-Tetramethylnaphthalene	68.868	9848	2122		
184	DBT	Dibenzothiophene	69.079	617446	134470		
191	BH32	C32 Benzohopane					
191	BH33	C33 Benzohopane					
191	BH34	C34 Benzohopane					
191	BH35	C35 Benzohopane					
192	3MP	3-Methylphenanthrene	75.307	1102923	240043		
192	2MP	2-Methylphenanthrene	75.483	1431637	319724		
192	9MP	9-Methylphenanthrene	76.169	1095231	238200		
192	1MP	1-Methylphenanthrene	76.363	855056	203592		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M1061045.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene					
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene					
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene					
198	4MDBT	4 Methyl Dibenzothiophene	73.636	805034	183940		
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.410	470246	105148		
198	1MDBT	1 Methyl Dibenzothiophene	75.219	98713	21518		
206	36DMP	3,6-Dimethylphenanthrene	79.529	137046	31709		
206	26DMP	2,6-Dimethylphenanthrene	79.776	336243	81110		
206	27DMP	2,7-Dimethylphenanthrene	79.881	246901	59623		
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.409	963034	188748		
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.603	531594	90398		
206	17DMP	1,7-Dimethylphenanthrene	80.743	354417	83350		
206	23DMP	2,3-Dimethylphenanthrene	81.025	192593	43978		
206	19DMP	1,9-Dimethylphenanthrene	81.130	156050	40622		
206	18DMP	1,8-Dimethylphenanthrene	81.553	70343	16676		
206	12DMP	1,2-Dimethylphenanthrene	82.063	40040	9295		
206	9_10DMP	9,10-Dimethylphenanthrene					
212	DMDBT	Dimethyldibenzothiophene					
219	RET	Retene	86.338	10603	2245		
226	TMDBT	Trimethyldibenzothiophene	81.711	475267	21372		
231	231A20	C20 Triaromatic Steroid					
231	231B21	C21 Triaromatic					
231	231C26	C26 20S Triaromatic					
231	231D26	C27 20S & C26 20R Triaromatic					
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic					
231	231F27	C27 20R Triaromatic					
231	TADMD3	C28 23,24-Cholestane Triaromatic					
231	C29TA1	C29 Triaromatic					
231	C29TA2	C29 Triaromatic					
231	TADMD4	C28 23,24-Cholestane Triaromatic					
231	231G28	C28 20R Triaromatic					
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M1061045.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
253	S253A	C21 Ring-C Monoaromatic Steroid					
253	S253B	C22 Monoaromatic steroid					
253	S253C	C27 Reg 5β(H),10β(CH3) 20S					
253	S253D	C27 Dia 10β(H),5β(CH3) 20S					
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R					
253	S253F	C27 Reg 5α(H),10β(CH3) 20S					
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S					
253	S253H	C27 Reg 5α(H),10β(CH3) 20R					
253	S253I	C28 Reg 5α(H),10β(CH3) 20S					
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R					
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S					
253	S253L	C29 Reg 5α(H),10β(CH3) 20S					
253	S253M	C28 Reg 5α(H),10β(CH3) 20R					
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R					
253	S253O	C29 Reg 5α(H),10β(CH3) 20R					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137818**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10890 - 10900 FT**	**Lab ID:**	**CP281145**
Sampling Point:		**File Name:**	**M1061045.D**

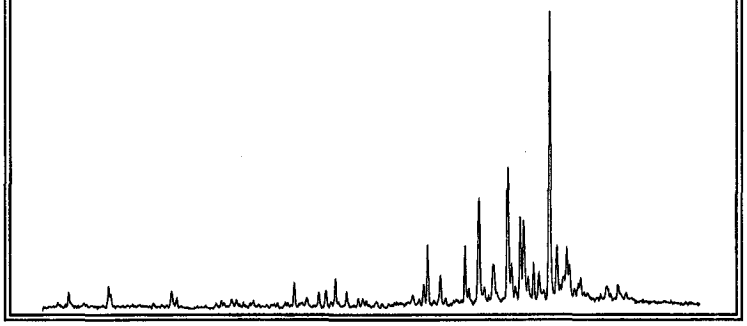
Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS		
TAS #1 20/20+27		
TAS #2 21/21+28		
%26TAS		
%27TAS		
%28TAS		
%29TAS		
C28/C26 20S TAS		
C28/C27 20R TAS		
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS		
%27 MAS		
%28 MAS		
%29 MAS		
(C21+C22)/Σ MAS		
TAS/(MAS+TAS)		
TA28/(TA28+MA29)		
Phenanthrenes and Naphthalenes		
MPI-1	0.85	0.88
MPI-2	0.96	1.00
Rc(a) if Ro < 1.3 (Ro%)	0.88	0.90
Rc(b) if Ro > 1.3 (Ro%)	1.79	1.77
DNR-1	9.24	6.29
DNR-2	2.08	2.26
TNR1	1.55	1.77
TDE-1	5.78	5.94
TDE-2	0.15	0.17
MDR	8.16	8.55
Rm (Ro%)	2.56	2.97
MDR23	0.76	0.78
MDR1	0.16	0.16
DBT/Phenanthrene	0.24	0.26

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

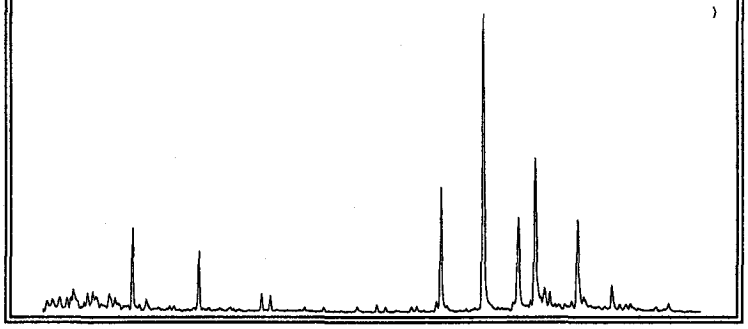
AROMATIC GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137820
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:		**Lab ID:**	CP281147
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	J.W. DALTON-1	**Geologic Age:**	
Latitude:		**Top Depth:**	8440 FT
Longitude:		**Bottom Depth:**	8450 FT

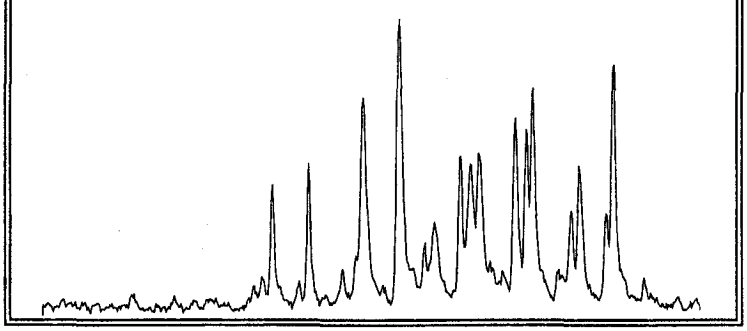
m/z 253: Monoaromatic steroids — M1061046.D



m/z 231: Triaromatic steroids — M1061046.D



m/z 245 Triaromatic Methylsteroids — M1061046.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.12	M	1.0 (1.3%)
TAS #1 20/20+27	0.26	M	
TAS #2 21/21+28	0.31	M	
%26 TAS	26.3	D	
%27 TAS	43.0	D	
%28 TAS	25.2	D	
%29 TAS	5.5	D	
C28/C26 20S TAS	1.02		
C28/C27 20R TAS	0.58		
Dia/Regular C27 MAS	2.50		
%27 MAS	26.4	D	
%28 MAS	38.8	D	
%29 MAS	34.8	D	
(C21+C22)/Σ MAS	0.06	M	1.0 (1.3%)
TAS/(MAS+TAS)	0.81	M	
TA28/(TA28+MA29)	0.76	M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index	0.34	A	
C4/C3+C4 Mester	0.51	A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.75	M	
Rc(a) if Ro < 1.3 (Ro%)	0.82	M	
Rc(b) if Ro > 1.3 (Ro%)	1.85	M	
MPI-2	0.86	M	
DNR-1		M	
DNR-2		M	
TNR1	1.05	M	
TDE-1	5.39	M	
TDE-2	0.25	M	
MDR	1.88	M	
Rm (Ro%)	0.70	M	
MDR23	1.48	M	
MDR1	1.14	M	
DBT/Phenanthrene	0.25	D	

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M1061046.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)				0.0	0.0
92	16AB	C16 Alkyl Benzene	66.795	1654	365		
92	17AB	C17 Alkyl Benzene	71.615	3545	748		
92	18AB	C18 Alkyl Benzene	75.820	8287	2043		
92	1THIO92	Dimethyl dibenzothiophene 1	77.579	5794	953		
92	2THIO92	Dimethyl dibenzothiophene 2	78.353	6538	1150		
92	19AB	C19 Alkyl Benzene	79.567	8052	1940		
92	20AB	C20 Alkyl Benzene	83.015	11502	2744		
92	21AB	C21 Alkyl Benzene	86.235	7102	1697		
92	22AB	C22 Alkyl Benzene	89.261	9364	2036		
92	23AB	C23 Alkyl Benzene	92.128	3603	795		
92	PHYBz	Phytanyl Benzene	94.064	2400	327		
92	24AB	C24 Alkyl Benzene	94.855	3795	849		
92	25AB	C25 Alkyl Benzene	97.494	1881	343		
92	26AB	C26 Alkyl Benzene	99.992	1807	336		
106	16ATM	C16 Alkyl Toluene (meta)	66.056	1021	222		
106	16ATO	C16 Alkyl Toluene (ortho)	66.988	1099	245		
106	17ATM	C17 Alkyl Toluene (meta)	70.929	3205	699		
106	17ATO	C17 Alkyl Toluene (ortho)	71.791	2260	548		
106	18ATM	C18 Alkyl Toluene (meta)	75.169	5403	1206		
106	18ATO	C18 Alkyl Toluene (ortho)	75.961	3886	977		
106	1THIO106	Dimethyl dibenzothiophene 1	77.579	6583	1020		
106	2THIO106	Dimethyl dibenzothiophene 2	78.336	6306	1005		
106	19ATM	C19 Alkyl Toluene (meta)	78.951	8061	1475		
106	19ATO	C19 Alkyl Toluene (ortho)	79.708	5740	1170		
106	20ATM	C20 Alkyl Toluene (meta)	82.417	5577	1315		
106	20ATO	C20 Alkyl Toluene (ortho)	83.139	4705	951		
106	21ATM	C21 Alkyl Toluene (meta)	85.637	5000	1105		
106	21ATO	C21 Alkyl Toluene (ortho)	86.358	4522	895		
106	22ATM	C22 Alkyl Toluene (meta)	88.680	3766	956		
106	22ATO	C22 Alkyl Toluene (ortho)	89.384	4137	736		
106	23ATM	C23 Alkyl Toluene (meta)	91.548	2612	602		
106	23ATO	C23 Alkyl Toluene (ortho)	92.252	1613	334		
106	24ATM	C24 Alkyl Toluene (meta)	94.292	2913	471		
106	24ATO	C24 Alkyl Toluene (ortho)	94.979	1347	295		
106	PHYTL	Phytanyl Toluene	95.999	17232	2007		
106	25ATM	C25 Alkyl Toluene (meta)	96.914	1069	266		
106	25ATO	C25 Alkyl Toluene (ortho)	97.600	1103	184		
106	26ATM	C26 Alkyl Toluene (meta)	99.447	1100	214		
106	26ATO	C26 Alkyl Toluene (ortho)	100.116	549	107		
134	15AI	C15 Aryl Isoprenoids					
134	16AI	C16 Aryl Isoprenoids	66.091	821	172		
134	17AI	C17 Aryl Isoprenoids	70.753	969	200		
134	18AI	C18 Aryl Isoprenoids	74.905	6937	1621		
134	19AI	C19 Aryl Isoprenoids	77.210	9447	2043		
134	20AI	C20 Aryl Isoprenoids	81.027	9384	2011		
134	21AI	C21 Aryl Isoprenoids	83.860	4919	1167		
134	22AI	C22 Aryl Isoprenoids	86.780	3634	798		
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M1061046.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene					
142	1MN	1-Methylnaphthalene					
156	2EN	2-Ethylnaphthalene					
156	1EN	1-Ethylnaphthalene					
156	26DMN	2,6-Dimethylnaphthalene	47.126	245	39		
156	27DMN	2,7-Dimethylnaphthalene	47.284	231	36		
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.252	431	46		
156	16DMN	1,6-Dimethylnaphthalene	48.481	349	46		
156	23DMN	2,3-Dimethylnaphthalene					
156	14DMN	1,4-Dimethylnaphthalene					
156	15DMN	1,5-Dimethylnaphthalene					
156	12DMN	1,2-Dimethylnaphthalene					
168	2MBP	2-Methylbiphenyl					
168	DPM	Diphenylmethane					
168	3MBP	3-Methylbiphenyl	53.389	1110	152		
168	4MBP	4-Methylbiphenyl	54.005	612	90		
168	DBF	Dibenzofuran	55.465	653	90		
170	BB_EMN	Ethyl-methyl-Naphthalene	55.236	345	53		
170	AB_EMN	Ethyl-methyl-Naphthalene	56.380	259	34		
170	137TMN	1,3,7-Trimethylnaphthalene	56.855	766	134		
170	136TMN	1,3,6-Trimethylnaphthalene	57.224	1570	236		
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.280	1461	226		
170	236TMN	2,3,6-Trimethylnaphthalene	58.579	1535	249		
170	127TMN	1,2,7-Trimethylnaphthalene	59.283	627	100		
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.476	2463	319		
170	124TMN	1,2,4-Trimethylnaphthalene	60.391	467	72		
170	125TMN	1,2,5-Trimethylnaphthalene	60.848	2515	406		
178	PHEN	Phenanthrene	70.331	115012	24175		
184	1357	1,3,5,7-Tetramethylnaphthalene	64.807	2603	400		
184	1367	1,3,6,7-Tetramethylnaphthalene	65.950	3993	821		
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.689	3784	704		
184	1257	1,2,5,7-Tetramethylnaphthalene	66.865	3804	710		
184	2367	2,3,6,7-Tetramethylnaphthalene	67.235	1585	339		
184	1267	1,2,6,7-Tetramethylnaphthalene	67.674	2913	606		
184	1237	1,2,3,7-Tetramethylnaphthalene	67.868	1340	274		
184	1236	1,2,3,6-Tetramethylnaphthalene	68.132	3622	743		
184	1256	1,2,5,6-Tetramethylnaphthalene	68.853	11102	2297		
184	DBT	Dibenzothiophene	69.064	28694	5881		
191	BH32	C32 Benzohopane	116.283	3911	921		
191	BH33	C33 Benzohopane	117.445	2597	594		
191	BH34	C34 Benzohopane	118.465	1452	314		
191	BH35	C35 Benzohopane	119.732	966	189		
192	3MP	3-Methylphenanthrene	75.257	82274	18025		
192	2MP	2-Methylphenanthrene	75.450	109915	23745		
192	9MP	9-Methylphenanthrene	76.137	148537	31532		
192	1MP	1-Methylphenanthrene	76.313	119175	26204		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M1061046.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene					
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene	73.128	1285	305		
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene	73.445	1787	406		
198	4MDBT	4 Methyl Dibenzothiophene	73.603	61666	13549		
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.377	42554	8848		
198	1MDBT	1 Methyl Dibenzothiophene	75.187	32794	7192		
206	36DMP	3,6-Dimethylphenanthrene	79.497	14862	3814		
206	26DMP	2,6-Dimethylphenanthrene	79.761	37922	8177		
206	27DMP	2,7-Dimethylphenanthrene	79.866	22206	5394		
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.359	186427	35734		
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.570	100113	17406		
206	17DMP	1,7-Dimethylphenanthrene	80.728	111694	25046		
206	23DMP	2,3-Dimethylphenanthrene	80.992	33478	6842		
206	19DMP	1,9-Dimethylphenanthrene	81.098	50068	10559		
206	18DMP	1,8-Dimethylphenanthrene	81.538	28722	6131		
206	12DMP	1,2-Dimethylphenanthrene	82.030	32096	7209		
206	9_10DMP	9,10-Dimethylphenanthrene	82.681	5931	1351		
212	DMDBT	Dimethyldibenzothiophene					
219	RET	Retene	86.323	63812	15081		
226	TMDBT	Trimethyldibenzothiophene	81.696	410655	9607		
231	231A20	C20 Triaromatic Steroid	92.392	23681	5369		
231	231B21	C21 Triaromatic	94.908	17560	3890		
231	231C26	C26 20S Triaromatic	104.144	40891	8132		
231	231D26	C27 20S & C26 20R Triaromatic	105.745	111907	19422		
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic	107.065	41911	6078		
231	231F27	C27 20R Triaromatic	107.716	66744	9978		
231	TADMD3	C28 23,24-Cholestane Triaromatic					
231	C29TA1	C29 Triaromatic	108.068	11334	1462		
231	C29TA2	C29 Triaromatic	108.279	6466	1208		
231	TADMD4	C28 23,24-Cholestane Triaromatic					
231	231G28	C28 20R Triaromatic	109.317	39039	5898		
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic	110.636	8535	1567		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M1061046.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
253	S253A	C21 Ring-C Monoaromatic Steroid	84.616	2465	495		
253	S253B	C22 Monoaromatic steroid	87.097	2314	385		
253	S253C	C27 Reg 5β(H),10β(CH3) 20S	97.090	2509	494		
253	S253D	C27 Dia 10β(H),5β(CH3) 20S	97.248	6271	1418		
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R	98.726	5861	1318		
253	S253F	C27 Reg 5α(H),10β(CH3) 20S	98.867	1380	335		
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S	99.289	14719	2416		
253	S253H	C27 Reg 5α(H),10β(CH3) 20R	100.555	3733	833		
253	S253I	C28 Reg 5α(H),10β(CH3) 20S	100.696	1589	303		
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R	100.890	9250	1913		
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S	101.030	10814	1829		
253	S253L	C29 Reg 5α(H),10β(CH3) 20S	102.350	6731	1216		
253	S253M	C28 Reg 5α(H),10β(CH3) 20R	102.614	3536	502		
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R	102.737	6735	1179		
253	S253O	C29 Reg 5α(H),10β(CH3) 20R	104.320	1770	280		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137820**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8440 - 8450 FT**	**Lab ID:**	**CP281147**
Sampling Point:		**File Name:**	**M1061046.D**

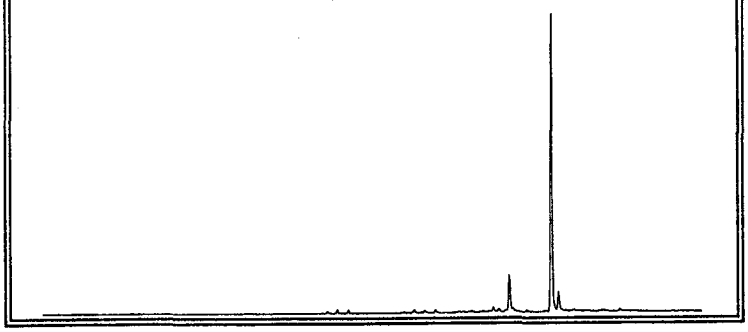
Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.12	0.15
TAS #1 20/20+27	0.26	0.35
TAS #2 21/21+28	0.31	0.40
%26TAS	26.3	31.8
%27TAS	43.0	39.0
%28TAS	25.2	23.1
%29TAS	5.5	6.1
C28/C26 20S TAS	1.02	0.75
C28/C27 20R TAS	0.58	0.59
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS	2.50	2.87
%27 MAS	26.4	31.3
%28 MAS	36.8	36.6
%29 MAS	34.8	32.1
(C21+C22)/Σ MAS	0.06	0.06
TAS/(MAS+TAS)	0.81	0.80
TA28/(TA28+MA29)	0.76	0.73
Phenanthrenes and Naphthalenes		
MPI-1	0.75	0.76
MPI-2	0.86	0.87
Rc(a) if Ro < 1.3 (Ro%)	0.82	0.83
Rc(b) if Ro > 1.3 (Ro%)	1.85	1.84
DNR-1		
DNR-2		
TNR1	1.05	1.10
TDE-1	5.39	5.64
TDE-2	0.25	0.31
MDR	1.88	1.88
Rm (Ro%)	0.70	0.71
MDR23	1.48	1.50
MDR1	1.14	1.22
DBT/Phenanthrene	0.25	0.24

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

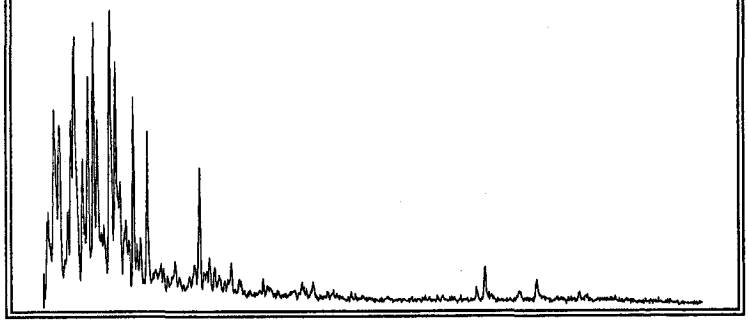
AROMATIC GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137138
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP280393
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	EAST SIMPSON 2	**Geologic Age:**	
Latitude:	70.9785	**Top Depth:**	7332.08 FT
Longitude:	-154.674	**Bottom Depth:**	FT

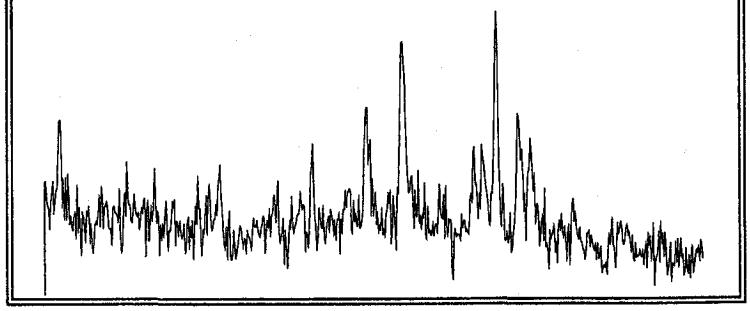
m/z 253: Monoaromatic steroids — M1061048.D



m/z 231: Triaromatic steroids — M1061048.D



m/z 245 Triaromatic Methylsteroids — M1061048.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.74	M	1.0 (1.3%)
TAS #1 20/20+27	0.86	M	
TAS #2 21/21+28	0.93	M	
%26 TAS	17.3	D	
%27 TAS	60.3	D	
%28 TAS	22.4	D	
%29 TAS		D	
C28/C26 20S TAS	2.06		
C28/C27 20R TAS	0.37		
Dia/Regular C27 MAS			
%27 MAS		D	
%28 MAS		D	
%29 MAS		D	
(C21+C22)/Σ MAS		M	1.0 (1.3%)
TAS/(MAS+TAS)	1.00	M	
TA28/(TA28+MA29)	1.00	M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index	0.18	A	
C4/C3+C4 Mester	0.57	A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.48	M	
Rc(a) if Ro < 1.3 (Ro%)	0.66	M	
Rc(b) if Ro > 1.3 (Ro%)	2.01	M	
MPI-2	0.51	M	
DNR-1	4.82	M	
DNR-2	1.26	M	
TNR1	1.13	M	
TDE-1	7.38	M	
TDE-2	0.17	M	
MDR	1.32	M	
Rm (Ro%)	0.66	M	
MDR23	0.62	M	
MDR1	0.60	M	
DBT/Phenanthrene	0.05	D	

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M1061048.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)	75.078	9314	2327	300.0	300.0
92	16AB	C16 Alkyl Benzene	66.792	9864	2094	317.7	270.0
92	17AB	C17 Alkyl Benzene	71.630	7902	2060	254.5	265.6
92	18AB	C18 Alkyl Benzene	75.817	5883	1584	189.5	204.2
92	1THIO92	Dimethyl dibenzothiophene 1	77.594	859	158	27.7	20.4
92	2THIO92	Dimethyl dibenzothiophene 2	78.333	1196	166	38.5	21.4
92	19AB	C19 Alkyl Benzene	79.582	4357	1167	140.3	150.5
92	20AB	C20 Alkyl Benzene	83.030	3512	934	113.1	120.4
92	21AB	C21 Alkyl Benzene	86.232	2727	683	87.8	88.1
92	22AB	C22 Alkyl Benzene	89.258	2236	537	72.0	69.2
92	23AB	C23 Alkyl Benzene	92.126	1671	395	53.8	50.9
92	PHYBz	Phytanyl Benzene					
92	24AB	C24 Alkyl Benzene	94.870	1363	279	43.9	36.0
92	25AB	C25 Alkyl Benzene	97.492	1037	202	33.4	26.0
92	26AB	C26 Alkyl Benzene	99.972	595	111	19.2	14.3
106	16ATM	C16 Alkyl Toluene (meta)	66.053	7998	1977	257.6	254.9
106	16ATO	C16 Alkyl Toluene (ortho)	67.003	5056	1113	162.9	143.5
106	17ATM	C17 Alkyl Toluene (meta)	70.944	7429	1794	239.3	231.3
106	17ATO	C17 Alkyl Toluene (ortho)	71.789	4466	1102	143.8	142.1
106	18ATM	C18 Alkyl Toluene (meta)	75.166	5692	1482	183.3	191.1
106	18ATO	C18 Alkyl Toluene (ortho)	75.958	3445	847	111.0	109.2
106	1THIO106	Dimethyl dibenzothiophene 1	77.612	1305	182	42.0	23.5
106	2THIO106	Dimethyl dibenzothiophene 2	78.351	1144	168	36.8	21.7
106	19ATM	C19 Alkyl Toluene (meta)	78.949	4429	1123	142.7	144.8
106	19ATO	C19 Alkyl Toluene (ortho)	79.705	2867	709	92.3	91.4
106	20ATM	C20 Alkyl Toluene (meta)	82.415	3326	903	107.1	116.4
106	20ATO	C20 Alkyl Toluene (ortho)	83.153	1955	532	63.0	68.6
106	21ATM	C21 Alkyl Toluene (meta)	85.652	3875	816	124.8	105.2
106	21ATO	C21 Alkyl Toluene (ortho)	86.391	3476	703	112.0	90.6
106	22ATM	C22 Alkyl Toluene (meta)	88.678	2067	562	66.6	72.5
106	22ATO	C22 Alkyl Toluene (ortho)	89.381	2536	427	81.7	55.0
106	23ATM	C23 Alkyl Toluene (meta)					
106	23ATO	C23 Alkyl Toluene (ortho)					
106	24ATM	C24 Alkyl Toluene (meta)					
106	24ATO	C24 Alkyl Toluene (ortho)					
106	PHYTL	Phytanyl Toluene	95.891	15371	3327	495.1	428.9
106	25ATM	C25 Alkyl Toluene (meta)					
106	25ATO	C25 Alkyl Toluene (ortho)					
106	26ATM	C26 Alkyl Toluene (meta)					
106	26ATO	C26 Alkyl Toluene (ortho)					
134	15AI	C15 Aryl Isoprenoids	60.916	722	143	23.3	18.4
134	16AI	C16 Aryl Isoprenoids	66.106	709	112	22.8	14.4
134	17AI	C17 Aryl Isoprenoids					
134	18AI	C18 Aryl Isoprenoids	74.902	407	89	13.1	11.5
134	19AI	C19 Aryl Isoprenoids	77.207	755	155	24.3	20.0
134	20AI	C20 Aryl Isoprenoids	81.025	677	168	21.8	21.7
134	21AI	C21 Aryl Isoprenoids					
134	22AI	C22 Aryl Isoprenoids					
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M1061048.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene	38.028	133142	23451	4288.4	3023.3
142	1MN	1-Methylnaphthalene	39.259	106166	18758	3419.6	2418.3
156	2EN	2-Ethylnaphthalene	46.226	12804	1959	412.4	252.6
156	1EN	1-Ethylnaphthalene	46.314	6672	1345	214.9	173.4
156	26DMN	2,6-Dimethylnaphthalene	47.123	63594	10974	2048.3	1414.8
156	27DMN	2,7-Dimethylnaphthalene	47.282	62984	10661	2028.7	1374.4
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.267	156169	22125	5030.1	2852.4
156	16DMN	1,6-Dimethylnaphthalene	48.531	133711	22237	4306.8	2866.8
156	23DMN	2,3-Dimethylnaphthalene	49.727	20722	4184	667.4	539.4
156	14DMN	1,4-Dimethylnaphthalene	49.798	80098	11923	2579.9	1537.1
156	15DMN	1,5-Dimethylnaphthalene	49.903	26235	6521	845.0	840.7
156	12DMN	1,2-Dimethylnaphthalene	50.871	33364	5562	1074.6	717.1
168	2MBP	2-Methylbiphenyl	46.666	1774	286	57.1	36.9
168	DPM	Diphenylmethane	48.935	3793	603	122.2	77.7
168	3MBP	3-Methylbiphenyl	53.369	61406	10312	1977.9	1329.4
168	4MBP	4-Methylbiphenyl	54.037	21056	3645	678.2	469.9
168	DBF	Dibenzofuran	55.462	102791	16715	3310.9	2154.9
170	BB_EMN	Ethyl-methyl-Naphthalene	55.216	23291	3065	750.2	395.1
170	AB_EMN	Ethyl-methyl-Naphthalene	56.412	10941	1804	352.4	232.6
170	137TMN	1,3,7-Trimethylnaphthalene	56.870	51782	8788	1667.9	1133.0
170	136TMN	1,3,6-Trimethylnaphthalene	57.239	84337	14496	2716.5	1868.8
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.295	64379	10059	2073.6	1296.8
170	236TMN	2,3,6-Trimethylnaphthalene	58.576	72533	13059	2336.3	1683.6
170	127TMN	1,2,7-Trimethylnaphthalene	59.315	19172	3412	617.5	439.9
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.491	114050	18146	3673.5	2339.4
170	124TMN	1,2,4-Trimethylnaphthalene	60.406	8391	1573	270.3	202.8
170	125TMN	1,2,5-Trimethylnaphthalene	60.846	61962	11817	1995.8	1523.5
178	PHEN	Phenanthrene	70.346	889732	197444	28657.9	25454.8
184	1357	1,3,5,7-Tetramethylnaphthalene	64.804	16723	3083	538.6	397.5
184	1367	1,3,6,7-Tetramethylnaphthalene	65.948	35251	7674	1135.4	989.3
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.687	23200	4484	747.3	578.1
184	1257	1,2,5,7-Tetramethylnaphthalene	66.880	22052	4751	710.3	612.5
184	2367	2,3,6,7-Tetramethylnaphthalene	67.250	7938	1797	255.7	231.7
184	1267	1,2,6,7-Tetramethylnaphthalene	67.689	21078	4808	678.9	619.9
184	1237	1,2,3,7-Tetramethylnaphthalene	67.865	3996	878	128.7	113.2
184	1236	1,2,3,6-Tetramethylnaphthalene	68.147	10399	2293	334.9	295.6
184	1256	1,2,5,6-Tetramethylnaphthalene	68.851	45760	10519	1473.9	1356.1
184	DBT	Dibenzothiophene	69.062	41647	9196	1341.4	1185.6
191	BH32	C32 Benzohopane					
191	BH33	C33 Benzohopane					
191	BH34	C34 Benzohopane					
191	BH35	C35 Benzohopane					
192	3MP	3-Methylphenanthrene	75.272	251757	60427	8109.0	7790.3
192	2MP	2-Methylphenanthrene	75.448	282070	67229	9085.4	8667.3
192	9MP	9-Methylphenanthrene	76.152	449158	106095	14467.2	13677.9
192	1MP	1-Methylphenanthrene	76.327	321772	77783	10364.1	10027.9

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M1061048.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene					
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene	73.143	4713	1106	151.8	142.6
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene	73.460	2423	579	78.0	74.6
198	4MDBT	4 Methyl Dibenzothiophene	73.601	32838	7581	1057.7	977.4
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.392	25822	5462	831.7	704.2
198	1MDBT	1 Methyl Dibenzothiophene	75.184	24885	5484	801.5	707.0
206	36DMP	3,6-Dimethylphenanthrene	79.512	30200	7492	972.7	965.9
206	26DMP	2,6-Dimethylphenanthrene	79.758	52343	12935	1685.9	1667.6
206	27DMP	2,7-Dimethylphenanthrene	79.864	34093	8205	1098.1	1057.8
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.374	284909	57880	9176.8	7462.0
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.567	153885	26642	4956.6	3434.7
206	17DMP	1,7-Dimethylphenanthrene	80.726	111022	27502	3576.0	3545.6
206	23DMP	2,3-Dimethylphenanthrene	81.007	60797	14119	1958.2	1820.2
206	19DMP	1,9-Dimethylphenanthrene	81.113	82055	21002	2643.0	2707.6
206	18DMP	1,8-Dimethylphenanthrene	81.535	42729	10568	1376.3	1362.4
206	12DMP	1,2-Dimethylphenanthrene	82.045	34454	8556	1109.7	1103.1
206	9_10DMP	9,10-Dimethylphenanthrene	82.678	4277	1027	137.8	132.4
212	DMDBT	Dimethyldibenzothiophene					
219	RET	Retene	86.320	6591	1324	212.3	170.7
226	TMDBT	Trimethyldibenzothiophene	82.731	43538	874	1402.3	112.7
231	231A20	C20 Triaromatic Steroid	92.407	7812	1760	251.6	226.9
231	231B21	C21 Triaromatic	94.905	5760	1137	185.5	146.6
231	231C26	C26 20S Triaromatic	104.159	360	60	11.6	7.7
231	231D26	C27 20S & C26 20R Triaromatic	105.760	1913	324	61.6	41.8
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic	107.027	741	93	23.9	12.0
231	231F27	C27 20R Triaromatic	107.731	1257	204	40.5	26.3
231	TADMD3	C28 23,24-Cholestane Triaromatic					
231	C29TA1	C29 Triaromatic					
231	C29TA2	C29 Triaromatic					
231	TADMD4	C28 23,24-Cholestane Triaromatic					
231	231G28	C28 20R Triaromatic	109.349	467	92	15.0	11.9
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M1061048.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
253	S253A	C21 Ring-C Monoaromatic Steroid					
253	S253B	C22 Monoaromatic steroid					
253	S253C	C27 Reg 5β(H),10β(CH3) 20S					
253	S253D	C27 Dia 10β(H),5β(CH3) 20S					
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R					
253	S253F	C27 Reg 5α(H),10β(CH3) 20S					
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S					
253	S253H	C27 Reg 5α(H),10β(CH3) 20R					
253	S253I	C28 Reg 5α(H),10β(CH3) 20S					
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R					
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S					
253	S253L	C29 Reg 5α(H),10β(CH3) 20S					
253	S253M	C28 Reg 5α(H),10β(CH3) 20R					
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R					
253	S253O	C29 Reg 5α(H),10β(CH3) 20R					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137138**
Well Name:	**EAST SIMPSON 2**	**Project #:**	**06-598-A**
Depth:	**7332.08 - FT**	**Lab ID:**	**CP280393**
Sampling Point:		**File Name:**	**M1061048.D**

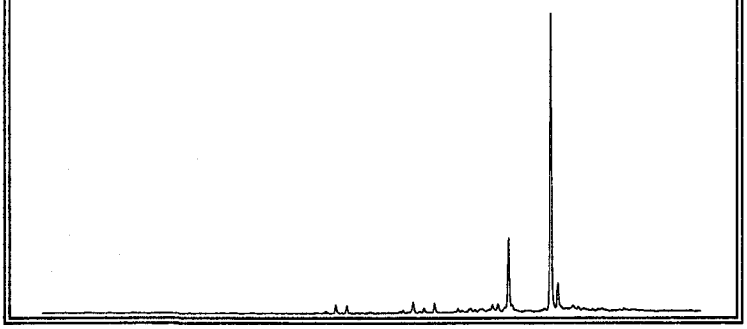
Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.74	0.79
TAS #1 20/20+27	0.86	0.90
TAS #2 21/21+28	0.93	0.93
%26TAS	17.3	16.9
%27TAS	60.3	57.3
%28TAS	22.4	25.8
%29TAS		
C28/C26 20S TAS	2.06	1.55
C28/C27 20R TAS	0.37	0.45
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS		
%27 MAS		
%28 MAS		
%29 MAS		
(C21+C22)/Σ MAS		
TAS/(MAS+TAS)	1.00	1.00
TA28/(TA28+MA29)	1.00	1.00
Phenanthrenes and Naphthalenes		
MPI-1	0.48	0.50
MPI-2	0.51	0.53
Rc(a) if Ro < 1.3 (Ro%)	0.66	0.67
Rc(b) if Ro > 1.3 (Ro%)	2.01	2.00
DNR-1	4.82	3.32
DNR-2	1.26	1.34
TNR1	1.13	1.30
TDE-1	7.38	7.51
TDE-2	0.17	0.19
MDR	1.32	1.38
Rm (Ro%)	0.66	0.66
MDR23	0.62	0.59
MDR1	0.60	0.60
DBT/Phenanthrene	0.05	0.05

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

AROMATIC GCMS

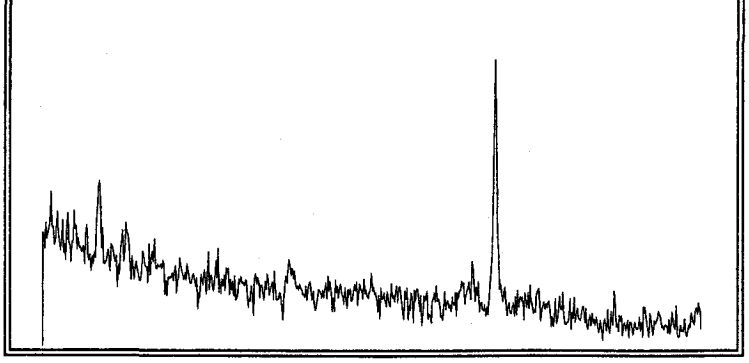
Company:	CONOCOPHILLIPS	**Client ID:**	US137819
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:	NORTH SLOPE	**Lab ID:**	CP281146
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:	PRUDHOE BAY	**Formation:**	
Well Name:	WEST KUP STATE 3-11-11	**Geologic Age:**	
Latitude:	70.3352	**Top Depth:**	10900 FT
Longitude:	-149.3067	**Bottom Depth:**	10910 FT

m/z 253: Monoaromatic steroids M1061050.D



m/z 231: Triaromatic steroids M1061050.D

m/z 245 Triaromatic Methylsteroids M1061050.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS		M	1.0 (1.3%)
TAS #1 20/20+27		M	
TAS #2 21/21+28		M	
%26 TAS		D	
%27 TAS		D	
%28 TAS		D	
%29 TAS		D	
C28/C26 20S TAS			
C28/C27 20R TAS			
Dia/Regular C27 MAS			
%27 MAS		D	
%28 MAS		D	
%29 MAS		D	
(C21+C22)/Σ MAS		M	1.0 (1.3%)
TAS/(MAS+TAS)		M	
TA28/(TA28+MA29)		M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index		A	
C4/C3+C4 Mester		A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.81	M	
Rc(a) if Ro < 1.3 (Ro%)	0.86	M	
Rc(b) if Ro > 1.3 (Ro%)	1.81	M	
MPI-2	0.91	M	
DNR-1	7.50	M	
DNR-2	1.71	M	
TNR1	1.56	M	
TDE-1	6.15	M	
TDE-2	0.15	M	
MDR	7.75	M	
Rm (Ro%)	2.20	M	
MDR23	0.67	M	
MDR1	0.15	M	
DBT/Phenanthrene	0.21	D	

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

GMC DATA REPORT 3 3 4

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M1061050.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)				0.0	0.0
92	16AB	C16 Alkyl Benzene	66.793	10061	2346		
92	17AB	C17 Alkyl Benzene	71.631	9798	2420		
92	18AB	C18 Alkyl Benzene	75.818	8075	2002		
92	1THIO92	Dimethyl dibenzothiophene 1	77.595	8091	1741		
92	2THIO92	Dimethyl dibenzothiophene 2	78.351	11620	1822		
92	19AB	C19 Alkyl Benzene	79.583	5774	1388		
92	20AB	C20 Alkyl Benzene	83.031	3282	811		
92	21AB	C21 Alkyl Benzene	86.233	2469	667		
92	22AB	C22 Alkyl Benzene	89.259	1763	387		
92	23AB	C23 Alkyl Benzene	92.126	1099	236		
92	PHYBz	Phytanyl Benzene					
92	24AB	C24 Alkyl Benzene	94.871	755	150		
92	25AB	C25 Alkyl Benzene	97.474	401	102		
92	26AB	C26 Alkyl Benzene	99.990	250	62		
106	16ATM	C16 Alkyl Toluene (meta)	66.054	7993	1917		
106	16ATO	C16 Alkyl Toluene (ortho)	67.004	4401	954		
106	17ATM	C17 Alkyl Toluene (meta)	70.945	9791	2528		
106	17ATO	C17 Alkyl Toluene (ortho)	71.789	4837	1168		
106	18ATM	C18 Alkyl Toluene (meta)	75.167	7998	1987		
106	18ATO	C18 Alkyl Toluene (ortho)	75.959	3994	972		
106	1THIO106	Dimethyl dibenzothiophene 1	77.595	8068	1626		
106	2THIO106	Dimethyl dibenzothiophene 2	78.334	8464	1361		
106	19ATM	C19 Alkyl Toluene (meta)	78.949	6895	1561		
106	19ATO	C19 Alkyl Toluene (ortho)	79.706	3887	655		
106	20ATM	C20 Alkyl Toluene (meta)	82.415	3927	993		
106	20ATO	C20 Alkyl Toluene (ortho)	83.154	1555	425		
106	21ATM	C21 Alkyl Toluene (meta)					
106	21ATO	C21 Alkyl Toluene (ortho)					
106	22ATM	C22 Alkyl Toluene (meta)					
106	22ATO	C22 Alkyl Toluene (ortho)					
106	23ATM	C23 Alkyl Toluene (meta)					
106	23ATO	C23 Alkyl Toluene (ortho)					
106	24ATM	C24 Alkyl Toluene (meta)					
106	24ATO	C24 Alkyl Toluene (ortho)					
106	PHYTL	Phytanyl Toluene	95.926	25488	4629		
106	25ATM	C25 Alkyl Toluene (meta)					
106	25ATO	C25 Alkyl Toluene (ortho)					
106	26ATM	C26 Alkyl Toluene (meta)					
106	26ATO	C26 Alkyl Toluene (ortho)					
134	15AI	C15 Aryl Isoprenoids	60.934	707	137		
134	16AI	C16 Aryl Isoprenoids	66.107	917	144		
134	17AI	C17 Aryl Isoprenoids	70.769	721	146		
134	18AI	C18 Aryl Isoprenoids	74.903	2856	569		
134	19AI	C19 Aryl Isoprenoids	77.208	2942	600		
134	20AI	C20 Aryl Isoprenoids	81.043	2285	497		
134	21AI	C21 Aryl Isoprenoids	83.875	905	215		
134	22AI	C22 Aryl Isoprenoids					
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M1061050.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene	38.028	25898	4530		
142	1MN	1-Methylnaphthalene	39.260	17487	2977		
156	2EN	2-Ethylnaphthalene	46.209	4839	822		
156	1EN	1-Ethylnaphthalene	46.297	1433	328		
156	26DMN	2,6-Dimethylnaphthalene	47.124	39867	6553		
156	27DMN	2,7-Dimethylnaphthalene	47.282	42436	7280		
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.267	83410	11719		
156	16DMN	1,6-Dimethylnaphthalene	48.514	70202	11975		
156	23DMN	2,3-Dimethylnaphthalene	49.710	6706	1646		
156	14DMN	1,4-Dimethylnaphthalene	49.798	41337	6057		
156	15DMN	1,5-Dimethylnaphthalene	49.886	10981	2804		
156	12DMN	1,2-Dimethylnaphthalene	50.871	10749	1807		
168	2MBP	2-Methylbiphenyl	46.666	1037	160		
168	DPM	Diphenylmethane	48.936	3489	580		
168	3MBP	3-Methylbiphenyl	53.369	132317	22366		
168	4MBP	4-Methylbiphenyl	54.038	67164	11191		
168	DBF	Dibenzofuran	55.463	67125	10967		
170	BB_EMN	Ethyl-methyl-Naphthalene	55.199	32164	4344		
170	AB_EMN	Ethyl-methyl-Naphthalene	56.430	12150	1948		
170	137TMN	1,3,7-Trimethylnaphthalene	56.870	75458	12770		
170	136TMN	1,3,6-Trimethylnaphthalene	57.240	120852	20534		
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.295	74963	11731		
170	236TMN	2,3,6-Trimethylnaphthalene	58.577	116717	21345		
170	127TMN	1,2,7-Trimethylnaphthalene	59.316	14355	2632		
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.474	93123	14944		
170	124TMN	1,2,4-Trimethylnaphthalene	60.406	4161	779		
170	125TMN	1,2,5-Trimethylnaphthalene	60.846	25595	4843		
178	PHEN	Phenanthrene	70.382	1990293	407506		
184	1357	1,3,5,7-Tetramethylnaphthalene	64.805	27240	5131		
184	1367	1,3,6,7-Tetramethylnaphthalene	65.948	46331	10082		
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.705	16744	3275		
184	1257	1,2,5,7-Tetramethylnaphthalene	66.881	11459	2397		
184	2367	2,3,6,7-Tetramethylnaphthalene	67.250	11549	2362		
184	1267	1,2,6,7-Tetramethylnaphthalene	67.690	9863	2284		
184	1237	1,2,3,7-Tetramethylnaphthalene	67.866	2848	671		
184	1236	1,2,3,6-Tetramethylnaphthalene	68.147	5420	1162		
184	1256	1,2,5,6-Tetramethylnaphthalene	68.851	9854	2306		
184	DBT	Dibenzothiophene	69.080	408818	86080		
191	BH32	C32 Benzohopane					
191	BH33	C33 Benzohopane					
191	BH34	C34 Benzohopane					
191	BH35	C35 Benzohopane					
192	3MP	3-Methylphenanthrene	75.290	804523	180092		
192	2MP	2-Methylphenanthrene	75.484	1018230	244220		
192	9MP	9-Methylphenanthrene	76.170	776136	173562		
192	1MP	1-Methylphenanthrene	76.346	606715	148027		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M1061050.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene					
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene					
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene					
198	4MDBT	4 Methyl Dibenzothiophene	73.619	471109	109372		
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.393	275633	63259		
198	1MDBT	1 Methyl Dibenzothiophene	75.202	60817	13565		
206	36DMP	3,6-Dimethylphenanthrene	79.512	96301	23030		
206	26DMP	2,6-Dimethylphenanthrene	79.776	237701	56102		
206	27DMP	2,7-Dimethylphenanthrene	79.882	163338	42112		
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.392	670292	135557		
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.585	371359	62979		
206	17DMP	1,7-Dimethylphenanthrene	80.744	239767	59524		
206	23DMP	2,3-Dimethylphenanthrene	81.008	130491	32292		
206	19DMP	1,9-Dimethylphenanthrene	81.131	111429	27500		
206	18DMP	1,8-Dimethylphenanthrene	81.535	50243	11707		
206	12DMP	1,2-Dimethylphenanthrene	82.046	28751	7174		
206	9_10DMP	9,10-Dimethylphenanthrene					
212	DMDBT	Dimethyldibenzothiophene					
219	RET	Retene	86.338	10105	2243		
226	TMDBT	Trimethyldibenzothiophene	81.694	276462	12045		
231	231A20	C20 Triaromatic Steroid					
231	231B21	C21 Triaromatic					
231	231C26	C26 20S Triaromatic					
231	231D26	C27 20S & C26 20R Triaromatic					
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic					
231	231F27	C27 20R Triaromatic					
231	TADMD3	C28 23,24-Cholestane Triaromatic					
231	C29TA1	C29 Triaromatic					
231	C29TA2	C29 Triaromatic					
231	TADMD4	C28 23,24-Cholestane Triaromatic					
231	231G28	C28 20R Triaromatic					
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M1061050.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
253	S253A	C21 Ring-C Monoaromatic Steroid					
253	S253B	C22 Monoaromatic steroid					
253	S253C	C27 Reg 5β(H),10β(CH3) 20S					
253	S253D	C27 Dia 10β(H),5β(CH3) 20S					
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R					
253	S253F	C27 Reg 5α(H),10β(CH3) 20S					
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S					
253	S253H	C27 Reg 5α(H),10β(CH3) 20R					
253	S253I	C28 Reg 5α(H),10β(CH3) 20S					
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R					
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S					
253	S253L	C29 Reg 5α(H),10β(CH3) 20S					
253	S253M	C28 Reg 5α(H),10β(CH3) 20R					
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R					
253	S253O	C29 Reg 5α(H),10β(CH3) 20R					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137819**
Well Name:	**WEST KUP STATE 3-11-11**	**Project #:**	**06-598-A**
Depth:	**10900 - 10910 FT**	**Lab ID:**	**CP281146**
Sampling Point:		**File Name:**	**M1061050.D**

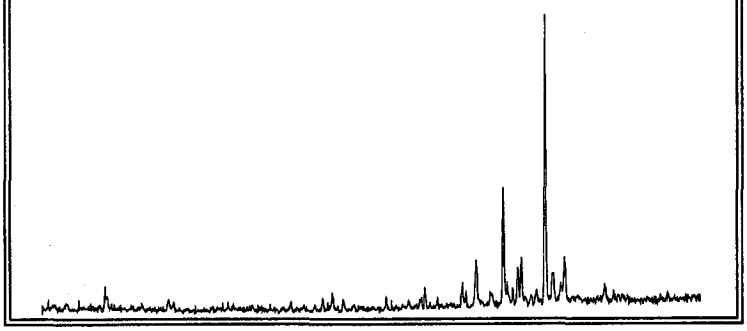
Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS		
TAS #1 20/20+27		
TAS #2 21/21+28		
%26TAS		
%27TAS		
%28TAS		
%29TAS		
C28/C26 20S TAS		
C28/C27 20R TAS		
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS		
%27 MAS		
%28 MAS		
%29 MAS		
(C21+C22)/Σ MAS		
TAS/(MAS+TAS)		
TA28/(TA28+MA29)		
Phenanthrenes and Naphthalenes		
MPI-1	0.81	0.87
MPI-2	0.91	1.00
Rc(a) if Ro < 1.3 (Ro%)	0.86	0.89
Rc(b) if Ro > 1.3 (Ro%)	1.81	1.78
DNR-1	7.50	4.93
DNR-2	1.71	1.80
TNR1	1.56	1.82
TDE-1	6.15	6.22
TDE-2	0.15	0.18
MDR	7.75	8.06
Rm (Ro%)	2.20	2.47
MDR23	0.67	0.73
MDR1	0.15	0.16
DBT/Phenanthrene	0.21	0.21

BASELINE RESOLUTION, INC.
ANALYTICAL LABORATORIES

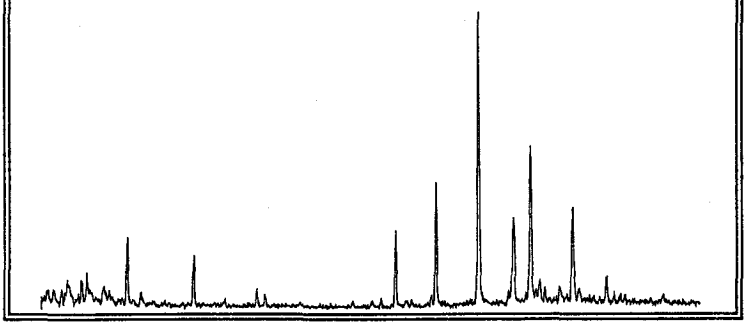
AROMATIC GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US137821
Country:	UNITED STATES	**Project #:**	06-598-A
Basin:		**Lab ID:**	CP281148
Lease:		**Sample Type:**	PICKED CTGS
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	J.W. DALTON-1	**Geologic Age:**	
Latitude:		**Top Depth:**	8610 FT
Longitude:		**Bottom Depth:**	8620 FT

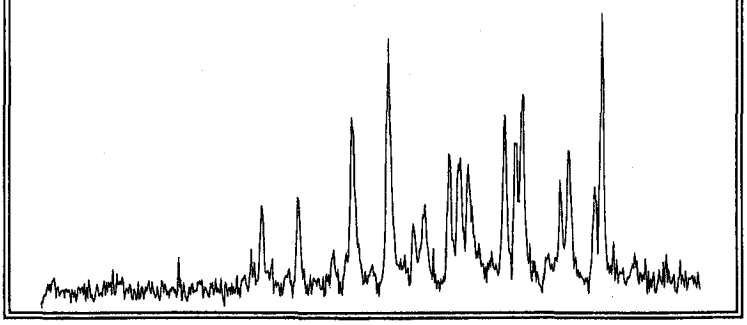
***m/z* 253: Monoaromatic steroids** M1061085.D



***m/z* 231: Triaromatic steroids** M1061085.D



***m/z* 245 Triaromatic Methylsteroids** M1061085.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.11	M	1.0 (1.3%)
TAS #1 20/20+27	0.26	M	
TAS #2 21/21+28	0.27	M	
%26 TAS	24.7	D	
%27 TAS	41.9	D	
%28 TAS	27.4	D	
%29 TAS	5.9	D	
C28/C26 20S TAS	1.09		
C28/C27 20R TAS	0.65		
Dia/Regular C27 MAS	2.11		
%27 MAS	18.3	D	
%28 MAS	35.4	D	
%29 MAS	46.3	D	
(C21+C22)/Σ MAS	0.09	M	1.0 (1.3%)
TAS/(MAS+TAS)	0.73	M	
TA28/(TA28+MA29)	0.61	M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index	0.37	A	
C4/C3+C4 Mester	0.54	A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.58	M	
Rc(a) if Ro < 1.3 (Ro%)	0.72	M	
Rc(b) if Ro > 1.3 (Ro%)	1.95	M	
MPI-2	0.65	M	
DNR-1	2.94	M	
DNR-2	1.19	M	
TNR1	0.90	M	
TDE-1	4.88	M	
TDE-2	0.28	M	
MDR	2.44	M	
Rm (Ro%)	0.73	M	
MDR23	0.66	M	
MDR1	0.50	M	
DBT/Phenanthrene	0.23	D	

[1]Definition and utility of the ratios can be found on our website www.BaselineDGSI.com

[2]A=Source Age; D=Depositional environment; M= Maturity

[3]Thermal equilibrium value of the biomarker ratio and in brackets the approximate VR value at which this value is reached

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M1061085.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)				0.0	0.0
92	16AB	C16 Alkyl Benzene	66.687	1898	402		
92	17AB	C17 Alkyl Benzene	71.542	2555	571		
92	18AB	C18 Alkyl Benzene	75.747	3735	872		
92	1THIO92	Dimethyl dibenzothiophene 1	77.471	2086	348		
92	2THIO92	Dimethyl dibenzothiophene 2	78.228	1702	255		
92	19AB	C19 Alkyl Benzene	79.494	2532	631		
92	20AB	C20 Alkyl Benzene	82.942	2272	518		
92	21AB	C21 Alkyl Benzene	86.144	1765	405		
92	22AB	C22 Alkyl Benzene	89.205	2244	401		
92	23AB	C23 Alkyl Benzene	92.038	880	193		
92	PHYBz	Phytanyl Benzene	93.973	281	62		
92	24AB	C24 Alkyl Benzene	94.782	534	106		
92	25AB	C25 Alkyl Benzene	97.369	458	93		
92	26AB	C26 Alkyl Benzene	99.884	441	75		
106	16ATM	C16 Alkyl Toluene (meta)	65.948	1591	318		
106	16ATO	C16 Alkyl Toluene (ortho)	66.898	1420	288		
106	17ATM	C17 Alkyl Toluene (meta)	70.856	2905	583		
106	17ATO	C17 Alkyl Toluene (ortho)	71.701	1914	403		
106	18ATM	C18 Alkyl Toluene (meta)	75.096	2869	588		
106	18ATO	C18 Alkyl Toluene (ortho)	75.870	1990	403		
106	1THIO106	Dimethyl dibenzothiophene 1	77.471	1818	368		
106	2THIO106	Dimethyl dibenzothiophene 2	78.210	1098	203		
106	19ATM	C19 Alkyl Toluene (meta)	78.878	2462	516		
106	19ATO	C19 Alkyl Toluene (ortho)	79.617	1700	394		
106	20ATM	C20 Alkyl Toluene (meta)	82.344	1625	377		
106	20ATO	C20 Alkyl Toluene (ortho)	83.083	1232	315		
106	21ATM	C21 Alkyl Toluene (meta)	85.564	1566	270		
106	21ATO	C21 Alkyl Toluene (ortho)	86.285	1047	272		
106	22ATM	C22 Alkyl Toluene (meta)	88.590	1055	260		
106	22ATO	C22 Alkyl Toluene (ortho)	89.311	764	182		
106	23ATM	C23 Alkyl Toluene (meta)	91.475	824	211		
106	23ATO	C23 Alkyl Toluene (ortho)	92.161	437	115		
106	24ATM	C24 Alkyl Toluene (meta)	94.219	601	121		
106	24ATO	C24 Alkyl Toluene (ortho)	94.906	496	105		
106	PHYTL	Phytanyl Toluene	95.908	3255	458		
106	25ATM	C25 Alkyl Toluene (meta)	96.841	416	88		
106	25ATO	C25 Alkyl Toluene (ortho)	97.509	298	91		
106	26ATM	C26 Alkyl Toluene (meta)	99.339	384	85		
106	26ATO	C26 Alkyl Toluene (ortho)	100.007	307	63		
134	15AI	C15 Aryl Isoprenoids	60.758	372	70		
134	16AI	C16 Aryl Isoprenoids	66.001	873	173		
134	17AI	C17 Aryl Isoprenoids	70.645	547	101		
134	18AI	C18 Aryl Isoprenoids	74.815	2484	519		
134	19AI	C19 Aryl Isoprenoids	77.119	2381	519		
134	20AI	C20 Aryl Isoprenoids	80.954	1795	390		
134	21AI	C21 Aryl Isoprenoids	83.787	687	176		
134	22AI	C22 Aryl Isoprenoids	86.707	723	132		
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M1061085.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene					
142	1MN	1-Methylnaphthalene					
156	2EN	2-Ethylnaphthalene	46.015	261	50		
156	1EN	1-Ethylnaphthalene	46.138	155	33		
156	26DMN	2,6-Dimethylnaphthalene	46.912	725	149		
156	27DMN	2,7-Dimethylnaphthalene	47.053	696	103		
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.091	1776	215		
156	16DMN	1,6-Dimethylnaphthalene	48.320	1589	250		
156	23DMN	2,3-Dimethylnaphthalene	49.499	380	75		
156	14DMN	1,4-Dimethylnaphthalene	49.604	815	104		
156	15DMN	1,5-Dimethylnaphthalene	49.727	483	95		
156	12DMN	1,2-Dimethylnaphthalene	50.660	653	94		
168	2MBP	2-Methylbiphenyl					
168	DPM	Diphenylmethane					
168	3MBP	3-Methylbiphenyl	53.193	2382	363		
168	4MBP	4-Methylbiphenyl	53.826	1355	204		
168	DBF	Dibenzofuran	55.234	2278	336		
170	BB_EMN	Ethyl-methyl-Naphthalene	55.023	1590	203		
170	AB_EMN	Ethyl-methyl-Naphthalene	56.237	1029	146		
170	137TMN	1,3,7-Trimethylnaphthalene	56.676	3093	492		
170	136TMN	1,3,6-Trimethylnaphthalene	57.028	5193	853		
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.119	4815	720		
170	236TMN	2,3,6-Trimethylnaphthalene	58.383	4311	742		
170	127TMN	1,2,7-Trimethylnaphthalene	59.139	1654	262		
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.315	5845	854		
170	124TMN	1,2,4-Trimethylnaphthalene	60.230	884	160		
170	125TMN	1,2,5-Trimethylnaphthalene	60.688	4313	732		
178	PHEN	Phenanthrene	70.188	87749	18895		
184	1357	1,3,5,7-Tetramethylnaphthalene	64.664	3577	594		
184	1367	1,3,6,7-Tetramethylnaphthalene	65.807	5140	1042		
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.564	4603	824		
184	1257	1,2,5,7-Tetramethylnaphthalene	66.757	3420	695		
184	2367	2,3,6,7-Tetramethylnaphthalene	67.109	1677	360		
184	1267	1,2,6,7-Tetramethylnaphthalene	67.549	3053	638		
184	1237	1,2,3,7-Tetramethylnaphthalene	67.742	1425	335		
184	1236	1,2,3,6-Tetramethylnaphthalene	68.006	3360	739		
184	1256	1,2,5,6-Tetramethylnaphthalene	68.710	8290	1723		
184	DBT	Dibenzothiophene	68.903	20515	4127		
191	BH32	C32 Benzohopane					
191	BH33	C33 Benzohopane					
191	BH34	C34 Benzohopane					
191	BH35	C35 Benzohopane					
192	3MP	3-Methylphenanthrene	75.131	29106	6332		
192	2MP	2-Methylphenanthrene	75.307	36472	8078		
192	9MP	9-Methylphenanthrene	75.993	44537	9619		
192	1MP	1-Methylphenanthrene	76.187	35995	8194		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M1061085.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene	66.176	2008	352		
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene	73.020	776	196		
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene	73.337	801	182		
198	4MDBT	4 Methyl Dibenzothiophene	73.478	25015	5432		
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.252	13506	2810		
198	1MDBT	1 Methyl Dibenzothiophene	75.061	10235	2256		
206	36DMP	3,6-Dimethylphenanthrene	79.389	4104	846		
206	26DMP	2,6-Dimethylphenanthrene	79.635	8754	2056		
206	27DMP	2,7-Dimethylphenanthrene	79.741	4976	1178		
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.251	39477	7708		
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.444	20847	3745		
206	17DMP	1,7-Dimethylphenanthrene	80.585	19795	4554		
206	23DMP	2,3-Dimethylphenanthrene	80.866	6631	1518		
206	19DMP	1,9-Dimethylphenanthrene	80.990	10785	2302		
206	18DMP	1,8-Dimethylphenanthrene	81.394	5443	1191		
206	12DMP	1,2-Dimethylphenanthrene	81.904	5364	1171		
206	9_10DMP	9,10-Dimethylphenanthrene	82.555	1046	230		
212	DMDBT	Dimethyldibenzothiophene					
219	RET	Retene	86.197	6500	1540		
226	TMDBT	Trimethyldibenzothiophene	82.591	58947	1710		
231	231A20	C20 Triaromatic Steroid	92.267	2125	452		
231	231B21	C21 Triaromatic	94.765	1462	342		
231	231C26	C26 20S Triaromatic	103.983	3534	827		
231	231D26	C27 20S & C26 20R Triaromatic	105.584	9891	1951		
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic	106.904	3847	575		
231	231F27	C27 20R Triaromatic	107.537	5983	1049		
231	TADMD3	C28 23,24-Cholestane Triaromatic					
231	C29TA1	C29 Triaromatic	107.924	973	158		
231	C29TA2	C29 Triaromatic	108.100	473	104		
231	TADMD4	C28 23,24-Cholestane Triaromatic					
231	231G28	C28 20R Triaromatic	109.156	3916	641		
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic	110.458	848	180		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M1061085.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
253	S253A	C21 Ring-C Monoaromatic Steroid	84.508	642	150		
253	S253B	C22 Monoaromatic steroid	86.989	434	78		
253	S253C	C27 Reg 5β(H),10β(CH3) 20S	96.999	262	69		
253	S253D	C27 Dia 10β(H),5β(CH3) 20S	97.122	553	130		
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R	98.618	672	148		
253	S253F	C27 Reg 5α(H),10β(CH3) 20S	98.758	280	100		
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S	99.145	1594	277		
253	S253H	C27 Reg 5α(H),10β(CH3) 20R	100.430	198	67		
253	S253I	C28 Reg 5α(H),10β(CH3) 20S	100.570	368	108		
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R	100.764	1136	232		
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S	100.922	1550	290		
253	S253L	C29 Reg 5α(H),10β(CH3) 20S	102.154	1226	178		
253	S253M	C28 Reg 5α(H),10β(CH3) 20R	102.470	698	118		
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R	102.629	1648	274		
253	S253O	C29 Reg 5α(H),10β(CH3) 20R	104.212	539	113		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US137821**
Well Name:	**J.W. DALTON-1**	**Project #:**	**06-598-A**
Depth:	**8610 - 8620 FT**	**Lab ID:**	**CP281148**
Sampling Point:		**File Name:**	**M1061085.D**

Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.11	0.13
TAS #1 20/20+27	0.26	0.30
TAS #2 21/21+28	0.27	0.35
%26TAS	24.7	30.7
%27TAS	41.9	38.9
%28TAS	27.4	23.8
%29TAS	5.9	6.7
C28/C26 20S TAS	1.09	0.70
C28/C27 20R TAS	0.65	0.61
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS	2.11	1.88
%27 MAS	18.3	24.4
%28 MAS	35.4	34.9
%29 MAS	46.3	40.6
(C21+C22)/Σ MAS	0.09	0.10
TAS/(MAS+TAS)	0.73	0.72
TA28/(TA28+MA29)	0.61	0.59
Phenanthrenes and Naphthalenes		
MPI-1	0.58	0.59
MPI-2	0.65	0.66
Rc(a) if Ro < 1.3 (Ro%)	0.72	0.72
Rc(b) if Ro > 1.3 (Ro%)	1.95	1.95
DNR-1	2.94	2.65
DNR-2	1.19	1.41
TNR1	0.90	1.03
TDE-1	4.88	4.58
TDE-2	0.28	0.31
MDR	2.44	2.41
Rm (Ro%)	0.73	0.73
MDR23	0.66	0.68
MDR1	0.50	0.55
DBT/Phenanthrene	0.23	0.22