Geochemical data (HC-show evaluation) for the following samples:

U. S. Navy Meade No. 1 core (2,959'),
U. S. Navy South Simpson No. 1 cuttings (3,000'-3,030'),
U. S. Navy East Topagoruk No. 1 core (2,240' & 2,249'),
U. S. Navy Oumalik No. 1 core (989', 997.25; and 1,625');

As well as

Geochemical data (source-rock evaluation for the following samples:

U. S. Navy Oumalik No. 1 cuttings (10,880'-10,890', 10,920'-10,930', 10,960'-10,970', 11,000'-11,010'), and
U. S. Navy Oumalik No. 1 core (10,992').

Received 16 July 2007 Total of 99 pages in report

Alaska Geologic Materials Center Data Report No. 343

HC-show evaluation for:

Well Name	Well Depth (ft)
Meade 1	2959'
S. Simpson-1	3030'
East Topagoruk-1	2240'
East Topagoruk-1	2249'
Oumalik 1	989'
Oumalik 1	997.25'
Oumalik 1	1625'

Source-Rock Evaluation for:

Well Name	Well Depth (ft)
Oumalik 1	10880'-10890'
Oumalik 1	10920'-10930'
Oumalik 1	10960'-10970'
Oumalik 1	10992'
Oumalik 1	11000'-11010'

(Data compiled 7-2-07)

ConocoPhillips

ConocoPhillips

July 9, 2007

The enclosed data transmittal contains one copy of the HC-show evaluation for the following samples:

Well Name	Well Depth (ft)
Meade 1	2959'
S. Simpson-1	3030'
East Topagoruk-1	2240'
East Topagoruk-1	2249'
Oumalik 1	989'
Oumalik 1	997.25'
Oumalik 1	1625'

The enclosed data transmittal also contains one copy of the source-rock evaluation for the following intervals:

Well Name	Well Depth (ft)
Oumalik 1	10880'-10890'
Oumalik 1	10920'-10930'
Oumalik 1	10960'-10970'
Oumalik 1	10992' ¢
Oumalik 1	11000'-11010'

Regards,

Bradley J. Huizinga

BASELINE DGSI
ANALYTICAL LABORATORIES

TABLE OF CONTENTS

Client ID	Lab ID	Project #	Field	Well Name	Depth	Sample Type
US133998	CP272543	04-180-A		OUMALIK 1	10880 10890 FT	CUTTINGS
US133999	CP272544	04-180-A		OUMALIK 1	10920 10930 FT	CUTTINGS
US134000	CP272545	04-180-A		OUMALIK 1	10960 10970 FT	CUTTINGS
US134001	CP272546	04-180-A		OUMALIK 1	10992 FT	CORE
US134002	CP272547	04-180-A		OUMALIK 1	11000 11010 FT	CUTTINGS
US134003	CP272548	04-180-A		EAST TOPAGORUK-1	2240 FT	CORE
US134004	CP272549	04-180-A		EAST TOPAGORUK-1	2249 FT	CORE
US134005	CP272550	04-180-A		S. SIMPSON-1	3030 FT	CUTTINGS
US134514	CP273044	04-180-A		OUMALIK 1	989 FT	CORE
US134515	CP273045	04-180-A		OUMALIK 1	997.25 FT	CORE
US134516	CP273046	04-180-A		OUMALIK 1	1625 FT	CORE
US134517	CP273047	04-180-A		MEADE 1	2959 FT	CORE

BASELINE DGSI
ANALYTICAL LABORATORIES

SOXHLET

Company: CONOCOPHILLIPS **Project #: 04-180-A**

Client ID	Lab ID	Rock Weight (g)	Net Extract Weight (g)	% Extract	EOM (ppm)
US134003	CP272548	22.8777	0.0052	0.02	227
US134004	CP272549	34.4861	0.0160	0.05	464
US134005	CP272550	0.2661	0.0022	0.83	8268
US134514	CP273044	34.2289	0.0832	0.24	2431
US134515	CP273045	29.3643	0.0670	0.23	2282
US134516	CP273046	23.8475	0.0214	0.09	897
US134517	CP273047	37.1012	0.0317	0.09	854

GMC DATA REPORT 3 4 3

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Tel/Fax: + 55.21 / 537 7893
E-mail: ssp@solintec.com.br

BASELINE DGSI
ANALYTICAL LABORATORIES

MPLC

Company: CONOCOPHILLIPS **Project #:** 04-180-A

Client ID	Lab ID	Sample Weight	SAT Weight	ARO Weight	NSO Weight	ASPH Weight	% SAT	% ARO	% NSO	% ASPH
US134514	CP273044	0.0780	0.0373	0.0120	0.0226	0.0003	47.82	15.39	28.97	0.38
US134516	CP273046	0.0180	0.0066	0.0032	0.0048	0.0000	36.67	17.78	26.67	0.00
US134517	CP273047	0.0232	0.0165	0.0012	0.0047	0.0000	71.12	5.18	20.26	0.00

GMC DATA REPORT 3 4 3

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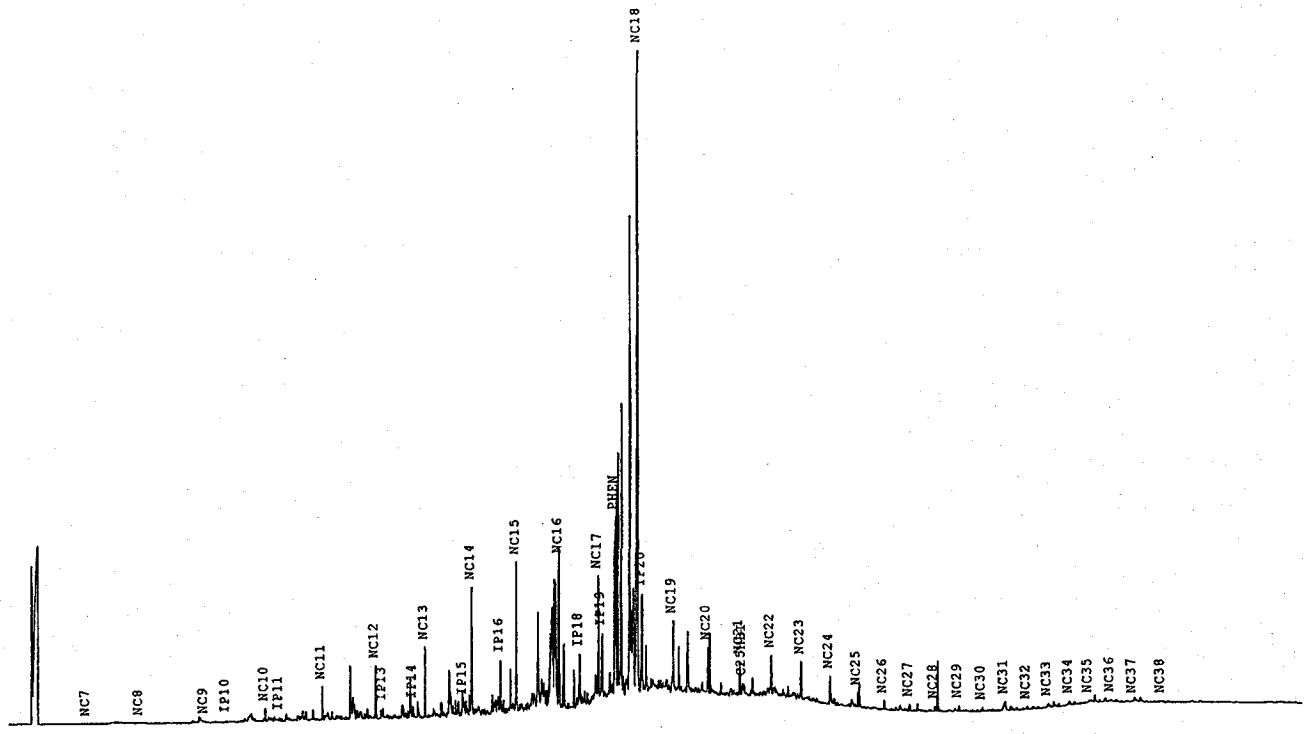
BASELINE DGSI ANALYTICAL LABORATORIES — WHOLE OIL GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134003
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:		**Lab ID:**	CP272548
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	EAST TOPAGORUK-1	**Geologic Age:**	
Latitude:		**Top Depth:**	2240 FT
Longitude:		**Bottom Depth:**	FT

Whole Oil GC Trace G2040228.D



GMC DATA REPORT 3 4 3

WGC parameters	
Pristane/Phytane	0.83
Pristane/*n* C_{17}	0.78
Phytane/*n* C_{18}	0.13
n C_{18}/*n* C_{19}	13.05
n C_{17}/*n* C_{29}	21.18
CPI Marzi[4]	0.92
Normal Paraffins	20.4
Isoprenoids	4.5
Cycloparaffins	
Branched (iso-) Paraffins	
BTX aromatics	
Resolved unknowns	73.1

Thompson[1]		
A.	BZ/*n* C_6	
B.	TOL/*n* C_7	
C.	(*n* C_6+*n* C_7)/(CH+MCH)	
I.	Isoheptane Value	
F.	*n* C_7/MCH	
U.	CH/MCP	
R.	*n* C_7/2MH	
S.	*n* C_6/22DMB	
H.	Heptane Value	100.00
	MCH/*n* C_7	
	mpXYL/*n* C_8	

Mango[2]	
P_1	100.00
P_2	
P_3	
$5N_1$	
N_2	
$6N_1$	
K_1	
K_2	
$5N_1/6N_1$	
P_3/N_2	
ln(24DMP/23DMP)	

Halpern[3]
Tr_1
Tr_2
Tr_3
Tr_4
Tr_5
Tr_7
Tr_8
C_1
C_2
C_3
C_4
C_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.

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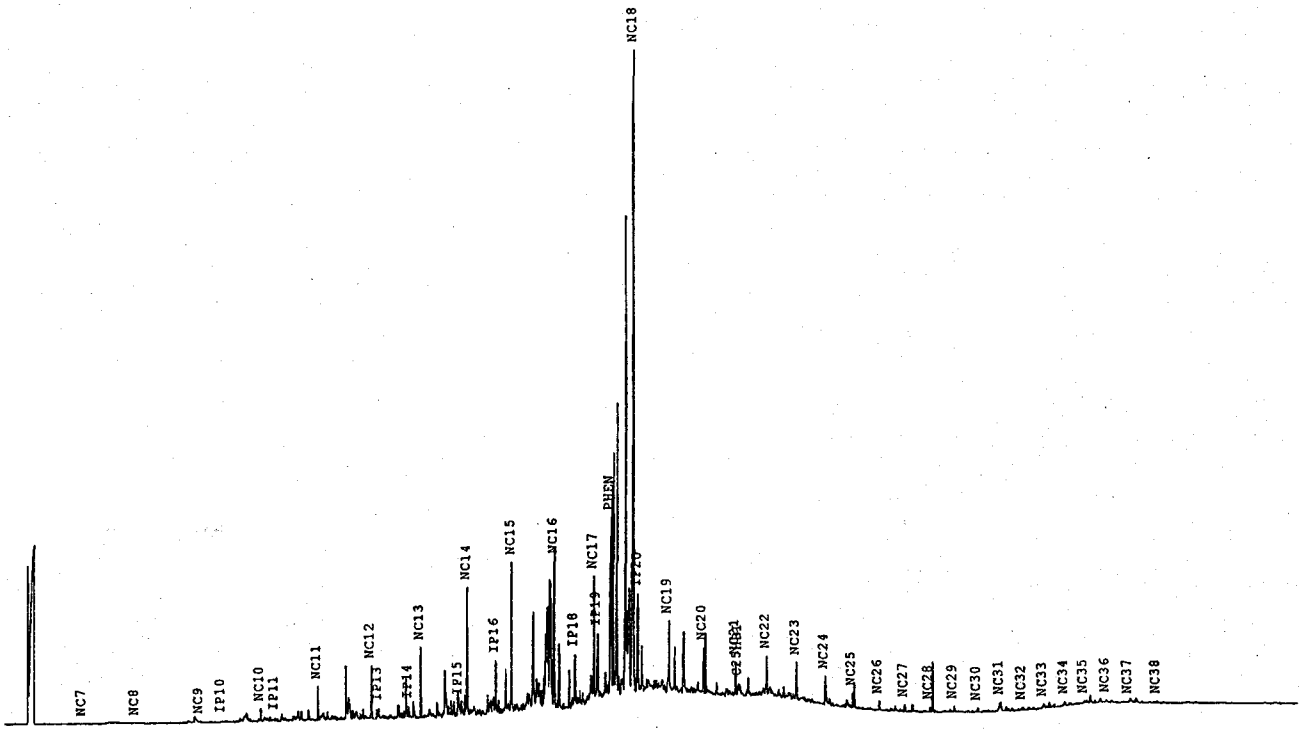
BASELINE DGSI
ANALYTICAL LABORATORIES

WHOLE OIL GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134003
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:		**Lab ID:**	CP272548
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	EAST TOPAGORUK-1	**Geologic Age:**	
Latitude:		**Top Depth:**	2240 FT
Longitude:		**Bottom Depth:**	FT

Whole Oil GC Trace G2040228.D



GMC DATA REPORT 3 4 3

WGC parameters	
Pristane/Phytane	0.83
Pristane/nC_{17}	0.78
Phytane/nC_{18}	0.13
nC_{18}/nC_{19}	13.05
nC_{17}/nC_{29}	21.18
CPI Marzi[4]	0.92
Normal Paraffins	20.4
Isoprenoids	4.5
Cycloparaffins	
Branched (iso-) Paraffins	
BTX aromatics	
Resolved unknowns	73.1

Thompson[1]		
A.	BZ/nC_6	
B.	TOL/nC_7	
C.	(nC_6+nC_7)/(CH+MCH)	
I.	Isoheptane Value	
F.	nC_7/MCH	
U.	CH/MCP	
R.	nC_7/2MH	
S.	nC_6/22DMB	
H.	Heptane Value	100.00
	MCH/nC_7	
	mpXYL/nC_8	

Mango[2]	
P_1	100.00
P_2	
P_3	
$5N_1$	
N_2	
$6N_1$	
K_1	
K_2	
$5N_1/6N_1$	
P_3/N_2	
ln(24DMP/23DMP)	

Halpern[3]
Tr_1
Tr_2
Tr_3
Tr_4
Tr_5
Tr_7
Tr_8
C_1
C_2
C_3
C_4
C_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:**	**US134003**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2240 - FT**	**Lab ID:**	**CP272548**
Sampling Point:		**File Name:**	**G2040228.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
IC4	Iso-alkane C4					
NC4	Normal Alkane C4					
IC5	Iso-alkane C5					
NC5	Normal Alkane C5					
22DMB	2,2-Dimethylbutane					
CP	Cyclopentane					
23DMB	2,3-Dimethylbutane					
2MP	2-Methylpentane					
3MP	3-Methylpentane					
NC6	Normal Alkane C6					
22DMP	2,2-Dimethylpentane					
MCP	Methylcyclopentane					
24DMP	2,4-Dimethylpentane					
223TMB	2,2,3-Trimethylbutane					
BZ	Benzene					
33DMP	3,3-Dimethylpentane					
CH	Cyclohexane					
2MH	2-Methylhexane					
23DMP	2,3-Dimethylpentane					
11DMCP	1,1-Dimethylcyclopentane					
3MH	3-Methylhexane					
1C3DMCP	1-cis-3-Dimethylcyclopentane					
1T3DMCP	1-trans-3-Dimethylcyclopentane					
3EP	3-Ethylpentane					
1T2DMCP	1-trans-2-Dimethylcyclopentane					
NC7	Normal Alkane C7	10.174	66	22		
ISTD	Internal Standard					
MCH	Methylcyclohexane					
113TMCP	1,1,3,-Trimethylcyclopentane					
ECP	Ethylcyclopentane					
124TMCP	1,2,4-Trimethylcyclopentane					
123TMCP	1,2,3-Trimethylcyclopentane					
TOL	Toluene					
NC8	Normal Alkane C8	15.063	185	29		
IP9	Isoprenoid C9					
MXYL	m-Xylene					
PXYL	p-Xylene					
OXYL	o-Xylene					
NC9	Normal Alkane C9	20.970	1105	219		
IP10	Isoprenoid C10	22.967	1191	185		
NC10	Normal Alkane C10	26.526	6760	2140		
IP11	Isoprenoid C11	27.819	1934	533		
NC11	Normal Alkane C11	31.759	16658	5554		
NC12	Normal Alkane C12	36.661	26851	8921		
IP13	Isoprenoid C13	37.396	7093	1695		
IP14	Isoprenoid C14	40.142	7712	1986		
NC13	Normal Alkane C13	41.253	36501	11794		
IP15	Isoprenoid C15	44.825	9198	2227		
NC14	Normal Alkane C14	45.578	71647	21359		
IP16	Isoprenoid C16	48.222	37812	8882		
NC15	Normal Alkane C15	49.647	86112	24908		

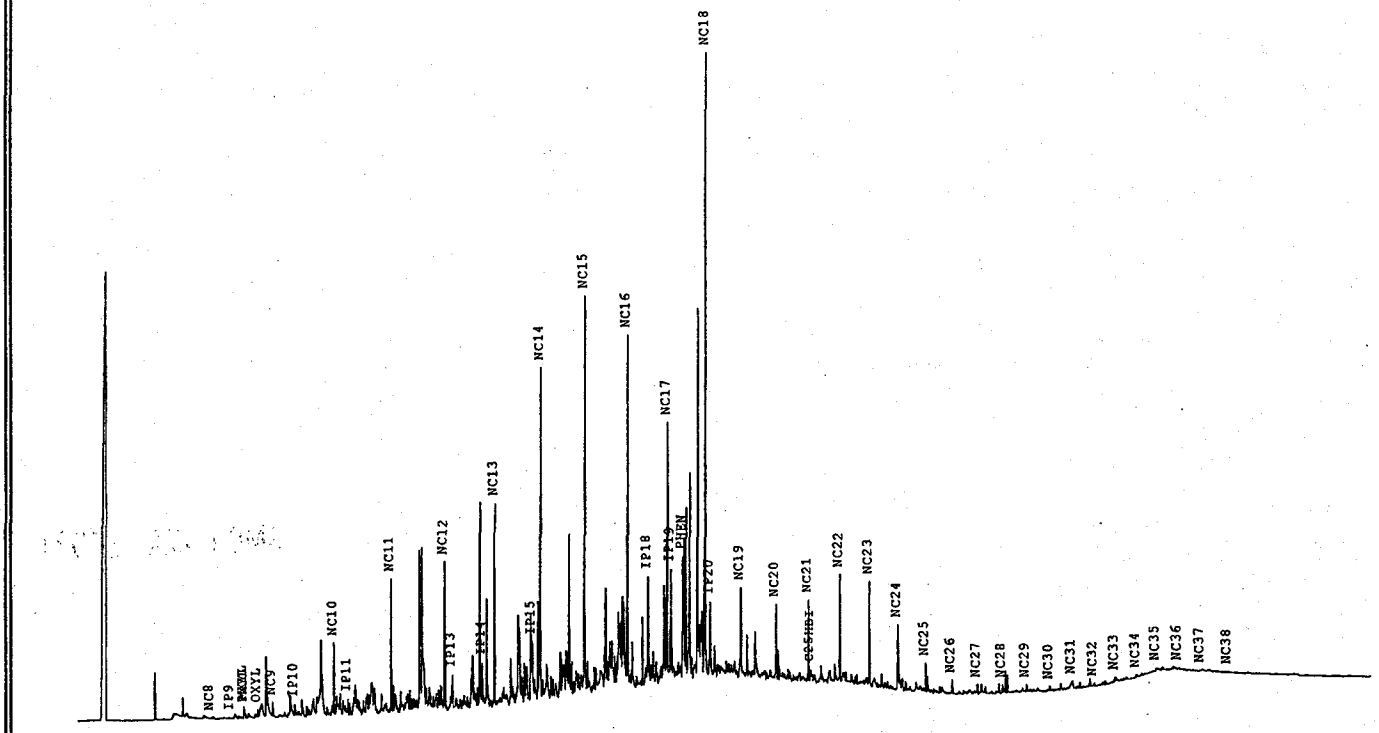
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134003**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2240 - FT**	**Lab ID:**	**CP272548**
Sampling Point:		**File Name:**	**G2040228.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
NC16	Normal Alkane C16	53.520	69660	24638		
IP18	Isoprenoid C18	55.421	45563	8715		
NC17	Normal Alkane C17	57.147	79465	20976		
IP19	Isoprenoid C19 (Pristane)	57.501	61591	11324		
PHEN	Phenanthrene	58.599	119033	29836		
NC18	Normal Alkane C18	60.681	564600	105866		
IP20	Isoprenoid C20 (Phytane)	61.110	74360	16325		
NC19	Normal Alkane C19	63.910	43260	11957		
NC20	Normal Alkane C20	67.045	31445	7883		
NC21	Normal Alkane C21	70.050	21685	5857		
C25HBI	Highly Branch Isoprenoid C25	70.300	13125	2152		
NC22	Normal Alkane C22	72.925	25941	6775		
NC23	Normal Alkane C23	75.681	22967	6373		
NC24	Normal Alkane C24	78.322	19400	4799		
NC25	Normal Alkane C25	80.862	8931	2479		
NC26	Normal Alkane C26	83.308	6145	1537		
NC27	Normal Alkane C27	85.664	4581	1136		
NC28	Normal Alkane C28	87.945	3552	902		
NC29	Normal Alkane C29	90.141	3752	961		
NC30	Normal Alkane C30	92.270	2763	633		
NC31	Normal Alkane C31	94.320	9613	1463		
NC32	Normal Alkane C32	96.318	2393	495		
NC33	Normal Alkane C33	98.261	4102	686		
NC34	Normal Alkane C34	100.188	4323	667		
NC35	Normal Alkane C35	101.976	3027	445		
NC36	Normal Alkane C36	103.951	5595	450		
NC37	Normal Alkane C37	106.023	1254	207		
NC38	Normal Alkane C38	108.632	1847	218		
NC39	Normal Alkane C39					
NC40	Normal Alkane C40					
NC41	Normal Alkane C41					

BASELINE DGSI ANALYTICAL LABORATORIES — WHOLE OIL GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134004
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:		**Lab ID:**	CP272549
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	EAST TOPAGORUK-1	**Geologic Age:**	
Latitude:		**Top Depth:**	2249 FT
Longitude:		**Bottom Depth:**	FT

Whole Oil GC Trace G2040226.D



GMC DATA REPORT 3 4 3

WGC parameters	
Pristane/Phytane	1.62
Pristane/$n C_{17}$	0.69
Phytane/$n C_{18}$	0.15
$n C_{18}/n C_{19}$	7.48
$n C_{17}/n C_{29}$	27.59
CPI Marzi[4]	0.91
Normal Paraffins	20.5
Isoprenoids	4.1
Cycloparaffins	
Branched (iso-) Paraffins	
BTX aromatics	0.1
Resolved unknowns	74.3

Thompson[1]		
A.	BZ/$n C_6$	
B.	TOL/$n C_7$	
C.	$(n C_6+n C_7)/(CH+MCH)$	
I.	Isoheptane Value	
F.	$n C_7$/MCH	
U.	CH/MCP	
R.	$n C_7$/2MH	
S.	$n C_6$/22DMB	
H.	Heptane Value	
	MCH/$n C_7$	
	mpXYL/$n C_8$	7.52

Mango[2]
P_1
P_2
P_3
$5N_1$
N_2
$6N_1$
K_1
K_2
$5N_1/6N_1$
P_3/N_2
ln(24DMP/23DMP)

Halpern[3]
Tr_1
Tr_2
Tr_3
Tr_4
Tr_5
Tr_7
Tr_8
C_1
C_2
C_3
C_4
C_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:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**G2040226.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
IC4	Iso-alkane C4					
NC4	Normal Alkane C4					
IC5	Iso-alkane C5					
NC5	Normal Alkane C5					
22DMB	2,2-Dimethylbutane					
CP	Cyclopentane					
23DMB	2,3-Dimethylbutane					
2MP	2-Methylpentane					
3MP	3-Methylpentane					
NC6	Normal Alkane C6					
22DMP	2,2-Dimethylpentane					
MCP	Methylcyclopentane					
24DMP	2,4-Dimethylpentane					
223TMB	2,2,3-Trimethylbutane					
BZ	Benzene					
33DMP	3,3-Dimethylpentane					
CH	Cyclohexane					
2MH	2-Methylhexane					
23DMP	2,3-Dimethylpentane					
11DMCP	1,1-Dimethylcyclopentane					
3MH	3-Methylhexane					
1C3DMCP	1-cis-3-Dimethylcyclopentane					
1T3DMCP	1-trans-3-Dimethylcyclopentane					
3EP	3-Ethylpentane					
1T2DMCP	1-trans-2-Dimethylcyclopentane					
NC7	Normal Alkane C7					
ISTD	Internal Standard					
MCH	Methylcyclohexane					
113TMCP	1,1,3,-Trimethylcyclopentane					
ECP	Ethylcyclopentane					
124TMCP	1,2,4-Trimethylcyclopentane					
123TMCP	1,2,3-Trimethylcyclopentane					
TOL	Toluene					
NC8	Normal Alkane C8	15.235	459	93		
IP9	Isoprenoid C9	17.084	207	62		
MXYL	m-Xylene	18.325	2373	723		
PXYL	p-Xylene	18.392	1078	333		
OXYL	o-Xylene	19.571	2456	535		
NC9	Normal Alkane C9	20.940	3346	984		
IP10	Isoprenoid C10	22.917	4104	798		
NC10	Normal Alkane C10	26.513	13704	4613		
IP11	Isoprenoid C11	27.809	3364	1021		
NC11	Normal Alkane C11	31.752	26246	8470		
NC12	Normal Alkane C12	36.656	28376	9293		
IP13	Isoprenoid C13	37.393	9230	2235		
IP14	Isoprenoid C14	40.141	10224	2827		
NC13	Normal Alkane C13	41.251	39945	12759		
IP15	Isoprenoid C15	44.815	14407	3742		
NC14	Normal Alkane C14	45.575	69371	20821		
IP16	Isoprenoid C16					
NC15	Normal Alkane C15	49.647	83477	24848		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**G2040226.D**

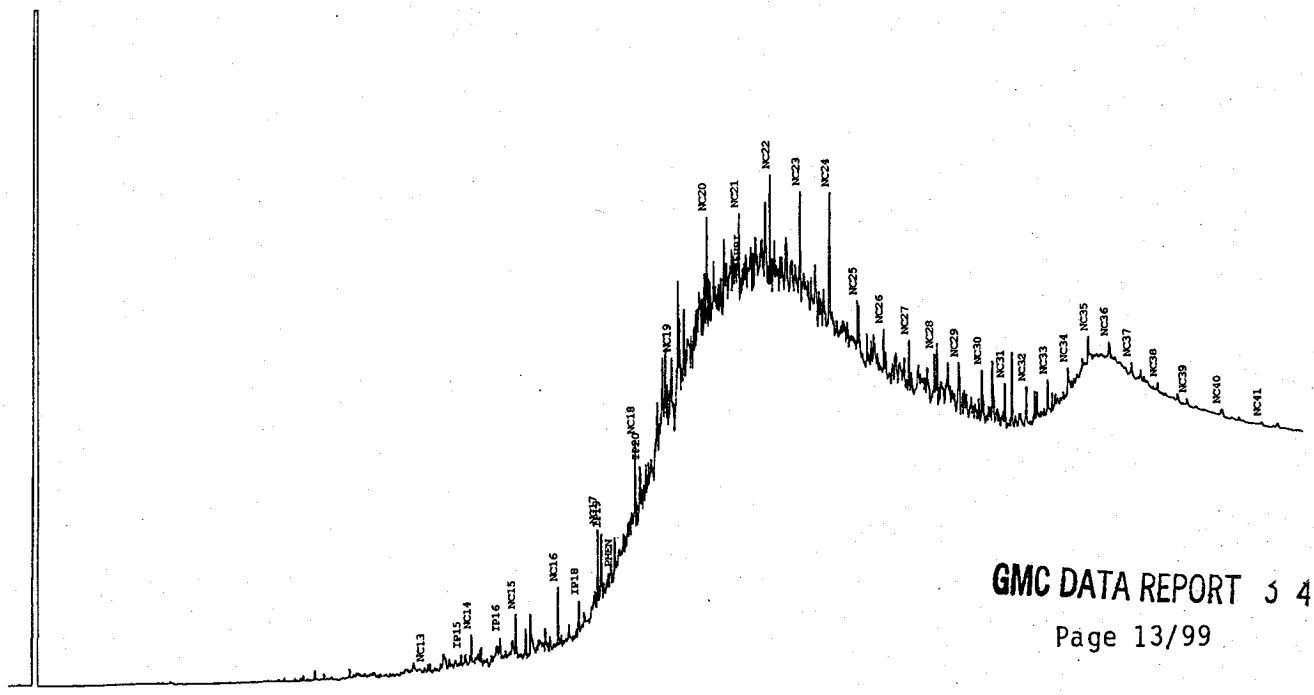
Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
NC16	Normal Alkane C16	53.499	94387	22099		
IP18	Isoprenoid C18	55.419	36896	6867		
NC17	Normal Alkane C17	57.135	57277	16349		
IP19	Isoprenoid C19 (Pristane)	57.492	39751	7133		
PHEN	Phenanthrene	58.568	31462	7806		
NC18	Normal Alkane C18	60.597	160975	38944		
IP20	Isoprenoid C20 (Phytane)	61.073	24606	4780		
NC19	Normal Alkane C19	63.889	21535	5671		
NC20	Normal Alkane C20	67.031	18777	4763		
NC21	Normal Alkane C21	70.040	17795	5188		
C25HBI	Highly Branch Isoprenoid C25	70.288	4435	867		
NC22	Normal Alkane C22	72.918	26322	6921		
NC23	Normal Alkane C23	75.674	22953	6598		
NC24	Normal Alkane C24	78.319	17848	4166		
NC25	Normal Alkane C25	80.861	6734	1896		
NC26	Normal Alkane C26	83.308	3658	934		
NC27	Normal Alkane C27	85.669	2829	647		
NC28	Normal Alkane C28	87.941	2647	592		
NC29	Normal Alkane C29	90.146	2076	517		
NC30	Normal Alkane C30	92.277	1773	339		
NC31	Normal Alkane C31	94.330	3530	545		
NC32	Normal Alkane C32	96.324	1361	239		
NC33	Normal Alkane C33	98.261	2532	359		
NC34	Normal Alkane C34	100.193	1122	164		
NC35	Normal Alkane C35	101.975	1136	199		
NC36	Normal Alkane C36	103.955	1232	150		
NC37	Normal Alkane C37	106.027	432	66		
NC38	Normal Alkane C38	108.459	319	47		
NC39	Normal Alkane C39					
NC40	Normal Alkane C40					
NC41	Normal Alkane C41					

BASELINE DGSI
ANALYTICAL LABORATORIES

WHOLE OIL GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134514
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273044
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	OUMALIK 1	**Geologic Age:**	
Latitude:	69.8416	**Top Depth:**	989 FT
Longitude:	-155.971	**Bottom Depth:**	FT

Whole Oil GC Trace G2040340.D



GMC DATA REPORT 5 4 5

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WGC parameters	
Pristane/Phytane	1.23
Pristane/$n C_{17}$	1.40
Phytane/$n C_{18}$	0.86
$n C_{18}/n C_{19}$	1.27
$n C_{17}/n C_{29}$	1.08
CPI Marzi[4]	0.72
Normal Paraffins	10.5
Isoprenoids	1.7
Cycloparaffins	
Branched (iso-) Paraffins	
BTX aromatics	
Resolved unknowns	87.8

Thompson[1]	
A.	BZ/$n C_6$
B.	TOL/$n C_7$
C.	($n C_6$+$n C_7$)/(CH+MCH)
I.	Isoheptane Value
F.	$n C_7$/MCH
U.	CH/MCP
R.	$n C_7$/2MH
S.	$n C_6$/22DMB
H.	Heptane Value
	MCH/$n C_7$
	mpXYL/$n C_8$

Mango[2]
P_1
P_2
P_3
$5N_1$
N_2
$6N_1$
K_1
K_2
$5N_1/6N_1$
P_3/N_2
ln(24DMP/23DMP)

Halpern[3]
Tr_1
Tr_2
Tr_3
Tr_4
Tr_5
Tr_7
Tr_8
C_1
C_2
C_3
C_4
C_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:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**G2040340.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
IC4	Iso-alkane C4					
NC4	Normal Alkane C4					
IC5	Iso-alkane C5					
NC5	Normal Alkane C5					
22DMB	2,2-Dimethylbutane					
CP	Cyclopentane					
23DMB	2,3-Dimethylbutane					
2MP	2-Methylpentane					
3MP	3-Methylpentane					
NC6	Normal Alkane C6					
22DMP	2,2-Dimethylpentane					
MCP	Methylcyclopentane					
24DMP	2,4-Dimethylpentane					
223TMB	2,2,3-Trimethylbutane					
BZ	Benzene					
33DMP	3,3-Dimethylpentane					
CH	Cyclohexane					
2MH	2-Methylhexane					
23DMP	2,3-Dimethylpentane					
11DMCP	1,1-Dimethylcyclopentane					
3MH	3-Methylhexane					
1C3DMCP	1-cis-3-Dimethylcyclopentane					
1T3DMCP	1-trans-3-Dimethylcyclopentane					
3EP	3-Ethylpentane					
1T2DMCP	1-trans-2-Dimethylcyclopentane					
NC7	Normal Alkane C7					
ISTD	Internal Standard					
MCH	Methylcyclohexane					
113TMCP	1,1,3,-Trimethylcyclopentane					
ECP	Ethylcyclopentane					
124TMCP	1,2,4-Trimethylcyclopentane					
123TMCP	1,2,3-Trimethylcyclopentane					
TOL	Toluene					
NC8	Normal Alkane C8					
IP9	Isoprenoid C9					
MXYL	m-Xylene					
PXYL	p-Xylene					
OXYL	o-Xylene					
NC9	Normal Alkane C9					
IP10	Isoprenoid C10					
NC10	Normal Alkane C10					
IP11	Isoprenoid C11					
NC11	Normal Alkane C11					
NC12	Normal Alkane C12					
IP13	Isoprenoid C13					
IP14	Isoprenoid C14					
NC13	Normal Alkane C13	41.168	332	77		
IP15	Isoprenoid C15	44.574	960	186		
NC14	Normal Alkane C14	45.484	2774	418		
IP16	Isoprenoid C16	48.106	1907	323		
NC15	Normal Alkane C15	49.520	2434	580		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**G2040340.D**

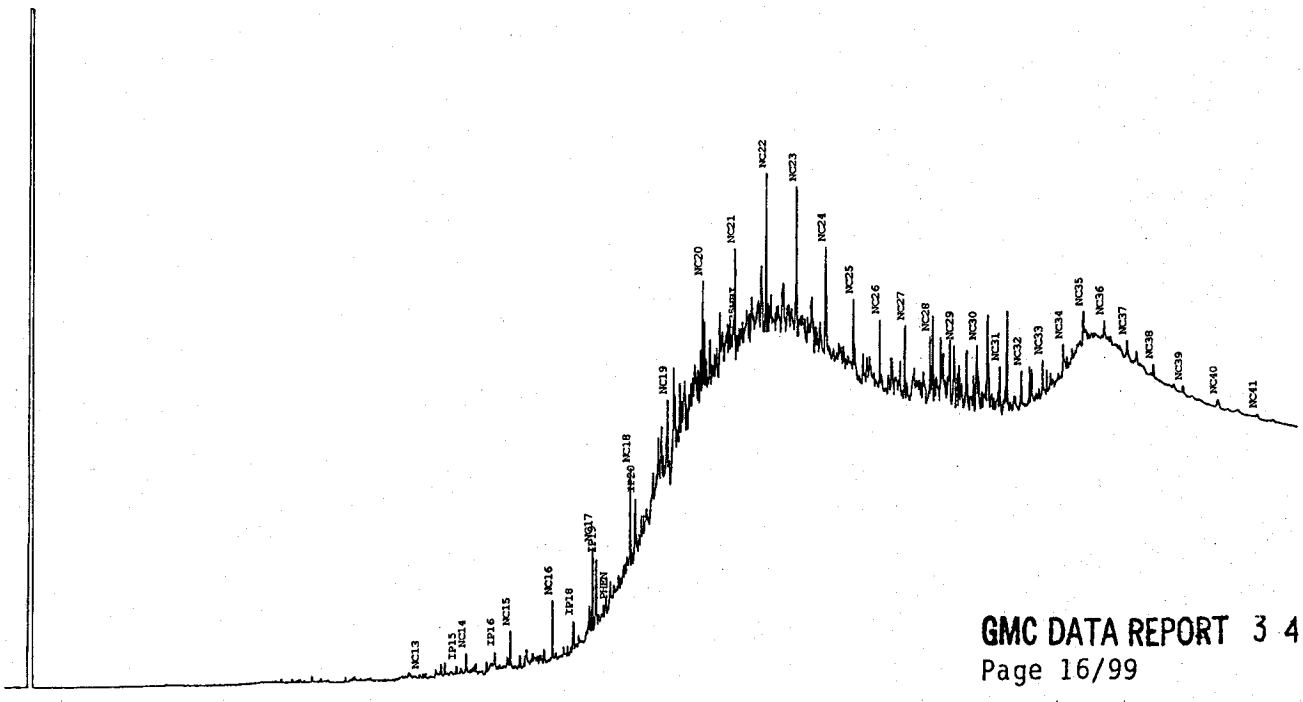
Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
NC16	Normal Alkane C16	53.359	2730	755		
IP18	Isoprenoid C18	55.285	2452	427		
NC17	Normal Alkane C17	57.002	3726	993		
IP19	Isoprenoid C19 (Pristane)	57.336	5213	862		
PHEN	Phenanthrene	58.412	700	149		
NC18	Normal Alkane C18	60.459	4930	1132		
IP20	Isoprenoid C20 (Phytane)	60.899	4242	655		
NC19	Normal Alkane C19	63.755	3894	1038		
NC20	Normal Alkane C20	66.910	8562	1723		
NC21	Normal Alkane C21	69.911	3689	1074		
C25HBI	Highly Branch Isoprenoid C25	70.165	627	211		
NC22	Normal Alkane C22	72.784	7976	1569		
NC23	Normal Alkane C23	75.542	7166	1560		
NC24	Normal Alkane C24	78.229	10890	1795		
NC25	Normal Alkane C25	80.728	3426	777		
NC26	Normal Alkane C26	83.176	2762	657		
NC27	Normal Alkane C27	85.533	2986	680		
NC28	Normal Alkane C28	87.806	2703	654		
NC29	Normal Alkane C29	90.012	3440	682		
NC30	Normal Alkane C30	92.140	4027	657		
NC31	Normal Alkane C31	94.188	2710	566		
NC32	Normal Alkane C32	96.183	2474	507		
NC33	Normal Alkane C33	98.127	2047	453		
NC34	Normal Alkane C34	99.997	1714	340		
NC35	Normal Alkane C35	101.833	1876	359		
NC36	Normal Alkane C36	103.711	1206	246		
NC37	Normal Alkane C37	105.834	1158	181		
NC38	Normal Alkane C38	108.240	816	129		
NC39	Normal Alkane C39	110.957	738	98		
NC40	Normal Alkane C40	114.151	619	102		
NC41	Normal Alkane C41	117.787	508	54		

BASELINE DGSI ANALYTICAL LABORATORIES

WHOLE OIL GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134515
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273045
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	OUMALIK 1	**Geologic Age:**	
Latitude:	69.8416	**Top Depth:**	997.25 FT
Longitude:	-155.971	**Bottom Depth:**	FT

Whole Oil GC Trace G2040341.D



GMC DATA REPORT 3 4 3
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WGC parameters	
Pristane/Phytane	0.98
Pristane/nC_{17}	1.30
Phytane/nC_{18}	1.02
nC_{18}/nC_{19}	1.11
nC_{17}/nC_{29}	1.06
CPI Marzi[4]	0.85
Normal Paraffins	12.4
Isoprenoids	1.8
Cycloparaffins	
Branched (iso-) Paraffins	
BTX aromatics	
Resolved unknowns	85.8

Thompson[1]	
A.	BZ/nC_6
B.	TOL/nC_7
C.	$(nC_6+nC_7)/(CH+MCH)$
I.	Isoheptane Value
F.	nC_7/MCH
U.	CH/MCP
R.	nC_7/2MH
S.	nC_6/22DMB
H.	Heptane Value
	MCH/nC_7
	$mpXYL/nC_8$

Mango[2]
P_1
P_2
P_3
$5N_1$
N_2
$6N_1$
K_1
K_2
$5N_1/6N_1$
P_3/N_2
ln(24DMP/23DMP)

Halpern[3]
Tr_1
Tr_2
Tr_3
Tr_4
Tr_5
Tr_7
Tr_8
C_1
C_2
C_3
C_4
C_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:**	**US134515**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**997.25 - FT**	**Lab ID:**	**CP273045**
Sampling Point:		**File Name:**	**G2040341.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
IC4	Iso-alkane C4					
NC4	Normal Alkane C4					
IC5	Iso-alkane C5					
NC5	Normal Alkane C5					
22DMB	2,2-Dimethylbutane					
CP	Cyclopentane					
23DMB	2,3-Dimethylbutane					
2MP	2-Methylpentane					
3MP	3-Methylpentane					
NC6	Normal Alkane C6					
22DMP	2,2-Dimethylpentane					
MCP	Methylcyclopentane					
24DMP	2,4-Dimethylpentane					
223TMB	2,2,3-Trimethylbutane					
BZ	Benzene					
33DMP	3,3-Dimethylpentane					
CH	Cyclohexane					
2MH	2-Methylhexane					
23DMP	2,3-Dimethylpentane					
11DMCP	1,1-Dimethylcyclopentane					
3MH	3-Methylhexane					
1C3DMCP	1-cis-3-Dimethylcyclopentane					
1T3DMCP	1-trans-3-Dimethylcyclopentane					
3EP	3-Ethylpentane					
1T2DMCP	1-trans-2-Dimethylcyclopentane					
NC7	Normal Alkane C7					
ISTD	Internal Standard					
MCH	Methylcyclohexane					
113TMCP	1,1,3,-Trimethylcyclopentane					
ECP	Ethylcyclopentane					
124TMCP	1,2,4-Trimethylcyclopentane					
123TMCP	1,2,3-Trimethylcyclopentane					
TOL	Toluene					
NC8	Normal Alkane C8					
IP9	Isoprenoid C9					
MXYL	m-Xylene					
PXYL	p-Xylene					
OXYL	o-Xylene					
NC9	Normal Alkane C9					
IP10	Isoprenoid C10					
NC10	Normal Alkane C10					
IP11	Isoprenoid C11					
NC11	Normal Alkane C11					
NC12	Normal Alkane C12					
IP13	Isoprenoid C13					
IP14	Isoprenoid C14					
NC13	Normal Alkane C13	41.158	244	55		
IP15	Isoprenoid C15	44.556	650	129		
NC14	Normal Alkane C14	45.452	1836	283		
IP16	Isoprenoid C16	48.088	1466	255		
NC15	Normal Alkane C15	49.504	2077	488		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134515**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**997.25 - FT**	**Lab ID:**	**CP273045**
Sampling Point:		**File Name:**	**G2040341.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
NC16	Normal Alkane C16	53.344	2594	750		
IP18	Isoprenoid C18	55.271	2155	378		
NC17	Normal Alkane C17	56.985	3689	1059		
IP19	Isoprenoid C19 (Pristane)	57.321	4791	846		
PHEN	Phenanthrene	58.409	327	82		
NC18	Normal Alkane C18	60.445	4800	1249		
IP20	Isoprenoid C20 (Phytane)	60.887	4890	753		
NC19	Normal Alkane C19	63.744	4322	1136		
NC20	Normal Alkane C20	66.894	7218	1652		
NC21	Normal Alkane C21	69.900	4779	1381		
C25HBI	Highly Branch Isoprenoid C25	70.143	930	308		
NC22	Normal Alkane C22	72.777	8781	2083		
NC23	Normal Alkane C23	75.532	7871	1923		
NC24	Normal Alkane C24	78.183	8551	1394		
NC25	Normal Alkane C25	80.720	3772	987		
NC26	Normal Alkane C26	83.167	3497	935		
NC27	Normal Alkane C27	85.529	3808	955		
NC28	Normal Alkane C28	87.802	3530	874		
NC29	Normal Alkane C29	90.010	3476	820		
NC30	Normal Alkane C30	92.136	5528	844		
NC31	Normal Alkane C31	94.196	2848	609		
NC32	Normal Alkane C32	96.186	2307	505		
NC33	Normal Alkane C33	98.121	2340	481		
NC34	Normal Alkane C34	99.997	1862	409		
NC35	Normal Alkane C35	101.829	2635	439		
NC36	Normal Alkane C36	103.717	1629	274		
NC37	Normal Alkane C37	105.833	1563	251		
NC38	Normal Alkane C38	108.224	1084	178		
NC39	Normal Alkane C39	110.966	943	122		
NC40	Normal Alkane C40	114.145	1349	115		
NC41	Normal Alkane C41	117.800	701	67		

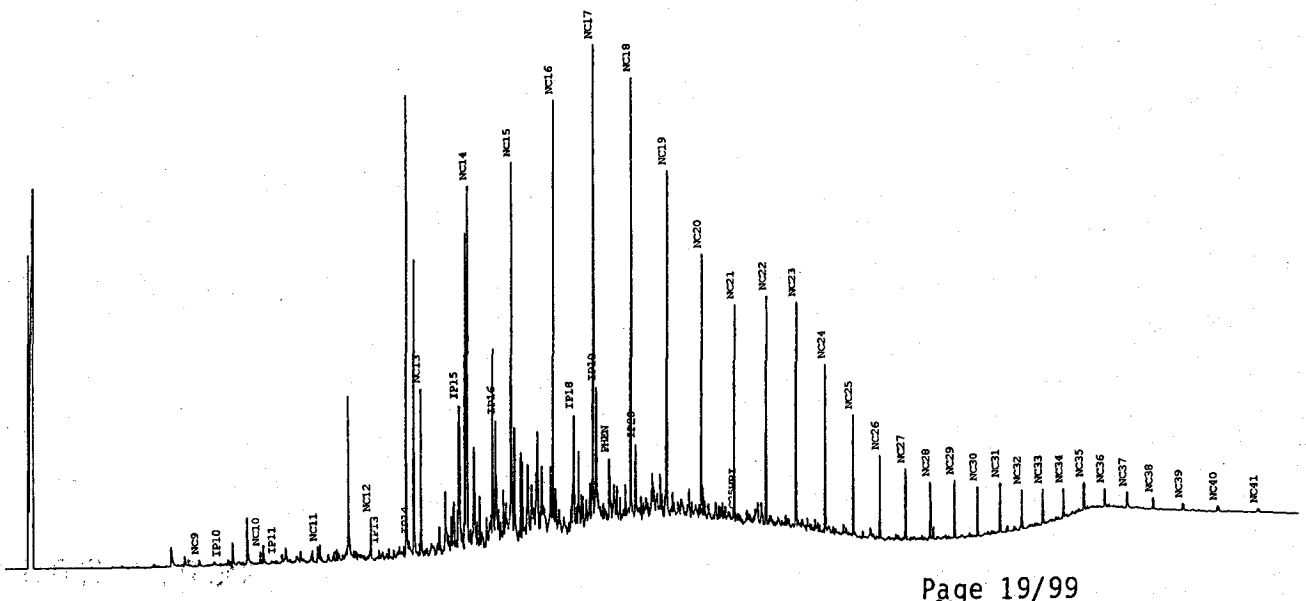
BASELINE DGSI
ANALYTICAL LABORATORIES

WHOLE OIL GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134516
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273046
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	OUMALIK 1	**Geologic Age:**	
Latitude:	69.8416	**Top Depth:**	1625 FT
Longitude:	-155.971	**Bottom Depth:**	FT

Whole Oil GC Trace

G2040342.D



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GMC DATA REPORT 3 4 3

WGC parameters	
Pristane/Phytane	1.84
Pristane/$n C_{17}$	0.49
Phytane/$n C_{18}$	0.28
$n C_{18}/n C_{19}$	1.30
$n C_{17}/n C_{29}$	7.24
CPI Marzi[4]	1.06
Normal Paraffins	27.3
Isoprenoids	5.1
Cycloparaffins	
Branched (iso-) Paraffins	
BTX aromatics	
Resolved unknowns	67.0

Thompson[1]	
A.	BZ/$n C_6$
B.	TOL/$n C_7$
C.	($n C_6$+$n C_7$)/(CH+MCH)
I.	Isoheptane Value
F.	$n C_7$/MCH
U.	CH/MCP
R.	$n C_7$/2MH
S.	$n C_6$/22DMB
H.	Heptane Value
	MCH/$n C_7$
	mpXYL/$n C_8$

Mango[2]
P_1
P_2
P_3
$5N_1$
N_2
$6N_1$
K_1
K_2
$5N_1/6N_1$
P_3/N_2
ln(24DMP/23DMP)

Halpern[3]
Tr_1
Tr_2
Tr_3
Tr_4
Tr_5
Tr_7
Tr_8
C_1
C_2
C_3
C_4
C_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:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**G2040342.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
IC4	Iso-alkane C4					
NC4	Normal Alkane C4					
IC5	Iso-alkane C5					
NC5	Normal Alkane C5					
22DMB	2,2-Dimethylbutane					
CP	Cyclopentane					
23DMB	2,3-Dimethylbutane					
2MP	2-Methylpentane					
3MP	3-Methylpentane					
NC6	Normal Alkane C6					
22DMP	2,2-Dimethylpentane					
MCP	Methylcyclopentane					
24DMP	2,4-Dimethylpentane					
223TMB	2,2,3-Trimethylbutane					
BZ	Benzene					
33DMP	3,3-Dimethylpentane					
CH	Cyclohexane					
2MH	2-Methylhexane					
23DMP	2,3-Dimethylpentane					
11DMCP	1,1-Dimethylcyclopentane					
3MH	3-Methylhexane					
1C3DMCP	1-cis-3-Dimethylcyclopentane					
1T3DMCP	1-trans-3-Dimethylcyclopentane					
3EP	3-Ethylpentane					
1T2DMCP	1-trans-2-Dimethylcyclopentane					
NC7	Normal Alkane C7					
ISTD	Internal Standard					
MCH	Methylcyclohexane					
113TMCP	1,1,3,-Trimethylcyclopentane					
ECP	Ethylcyclopentane					
124TMCP	1,2,4-Trimethylcyclopentane					
123TMCP	1,2,3-Trimethylcyclopentane					
TOL	Toluene					
NC8	Normal Alkane C8					
IP9	Isoprenoid C9					
MXYL	m-Xylene					
PXYL	p-Xylene					
OXYL	o-Xylene					
NC9	Normal Alkane C9	20.863	1330	385		
IP10	Isoprenoid C10	22.819	503	128		
NC10	Normal Alkane C10	26.418	2959	802		
IP11	Isoprenoid C11	27.870	887	204		
NC11	Normal Alkane C11	31.647	3043	996		
NC12	Normal Alkane C12	36.540	9954	2719		
IP13	Isoprenoid C13	37.288	2288	622		
IP14	Isoprenoid C14	40.023	4291	1093		
NC13	Normal Alkane C13	41.133	37580	10575		
IP15	Isoprenoid C15	44.630	28449	9228		
NC14	Normal Alkane C14	45.454	86960	22892		
IP16	Isoprenoid C16	48.097	32896	7962		
NC15	Normal Alkane C15	49.523	79546	23912		

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**G2040342.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
NC16	Normal Alkane C16	53.369	96777	27418		
IP18	Isoprenoid C18	55.288	37957	7455		
NC17	Normal Alkane C17	57.016	105987	30407		
IP19	Isoprenoid C19 (Pristane)	57.340	52078	8936		
PHEN	Phenanthrene	58.504	21124	4298		
NC18	Normal Alkane C18	60.476	99379	27883		
IP20	Isoprenoid C20 (Phytane)	60.904	28275	4876		
NC19	Normal Alkane C19	63.770	76204	21866		
NC20	Normal Alkane C20	66.906	61878	16682		
NC21	Normal Alkane C21	69.909	47290	13785		
C25HBI	Highly Branch Isoprenoid C25	70.150	2304	545		
NC22	Normal Alkane C22	72.786	52342	14502		
NC23	Normal Alkane C23	75.539	49948	14314		
NC24	Normal Alkane C24	78.181	40143	10686		
NC25	Normal Alkane C25	80.721	28218	7782		
NC26	Normal Alkane C26	83.166	19642	5369		
NC27	Normal Alkane C27	85.525	16862	4578		
NC28	Normal Alkane C28	87.800	13319	3681		
NC29	Normal Alkane C29	90.000	14640	3707		
NC30	Normal Alkane C30	92.129	12289	3181		
NC31	Normal Alkane C31	94.186	12326	3220		
NC32	Normal Alkane C32	96.181	9655	2525		
NC33	Normal Alkane C33	98.116	9905	2274		
NC34	Normal Alkane C34	99.992	7508	1888		
NC35	Normal Alkane C35	101.824	7754	1782		
NC36	Normal Alkane C36	103.722	6251	1228		
NC37	Normal Alkane C37	105.833	5358	1033		
NC38	Normal Alkane C38	108.220	4353	752		
NC39	Normal Alkane C39	110.955	3190	457		
NC40	Normal Alkane C40	114.111	3507	365		
NC41	Normal Alkane C41	117.794	2157	214		

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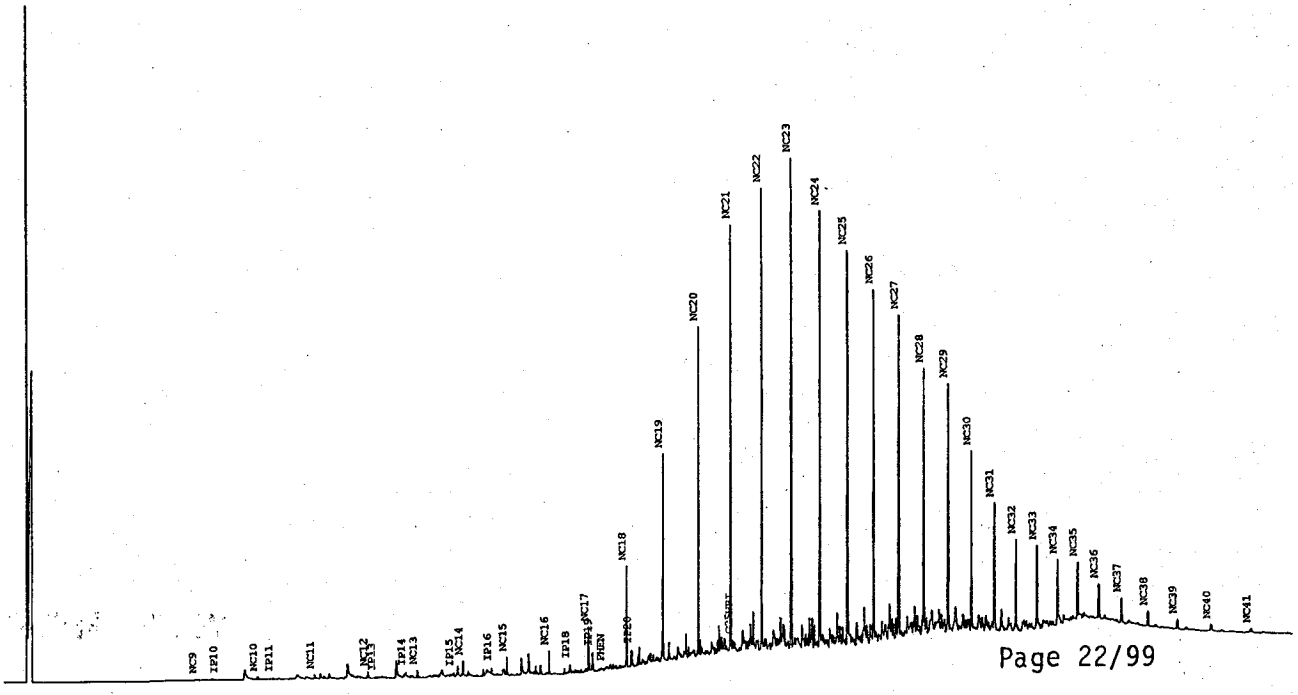
BASELINE DGSI
ANALYTICAL LABORATORIES

WHOLE OIL GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134517
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273047
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	MEADE 1	**Geologic Age:**	
Latitude:		**Top Depth:**	2959 FT
Longitude:		**Bottom Depth:**	FT

Whole Oil GC Trace G2040343.D



GMC DATA REPORT 3 4 3

WGC parameters	
Pristane/Phytane	0.90
Pristane/$n C_{17}$	0.69
Phytane/$n C_{18}$	0.34
$n C_{18}/n C_{19}$	0.49
$n C_{17}/n C_{29}$	0.15
CPI Marzi[4]	1.06
Normal Paraffins	49.9
Isoprenoids	1.2
Cycloparaffins	
Branched (iso-) Paraffins	
BTX aromatics	
Resolved unknowns	48.9

Thompson[1]	
A.	BZ/$n C_6$
B.	TOL/$n C_7$
C.	($n C_6$+$n C_7$)/(CH+MCH)
I.	Isoheptane Value
F.	$n C_7$/MCH
U.	CH/MCP
R.	$n C_7$/2MH
S.	$n C_6$/22DMB
H.	Heptane Value
	MCH/$n C_7$
	mpXYL/$n C_8$

Mango[2]
P_1
P_2
P_3
$5N_1$
N_2
$6N_1$
K_1
K_2
$5N_1/6N_1$
P_3/N_2
ln(24DMP/23DMP)

Halpern[3]
Tr_1
Tr_2
Tr_3
Tr_4
Tr_5
Tr_7
Tr_8
C_1
C_2
C_3
C_4
C_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:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**G2040343.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
IC4	Iso-alkane C4					
NC4	Normal Alkane C4					
IC5	Iso-alkane C5					
NC5	Normal Alkane C5					
22DMB	2,2-Dimethylbutane					
CP	Cyclopentane					
23DMB	2,3-Dimethylbutane					
2MP	2-Methylpentane					
3MP	3-Methylpentane					
NC6	Normal Alkane C6					
22DMP	2,2-Dimethylpentane					
MCP	Methylcyclopentane					
24DMP	2,4-Dimethylpentane					
223TMB	2,2,3-Trimethylbutane					
BZ	Benzene					
33DMP	3,3-Dimethylpentane					
CH	Cyclohexane					
2MH	2-Methylhexane					
23DMP	2,3-Dimethylpentane					
11DMCP	1,1-Dimethylcyclopentane					
3MH	3-Methylhexane					
1C3DMCP	1-cis-3-Dimethylcyclopentane					
1T3DMCP	1-trans-3-Dimethylcyclopentane					
3EP	3-Ethylpentane					
1T2DMCP	1-trans-2-Dimethylcyclopentane					
NC7	Normal Alkane C7					
ISTD	Internal Standard					
MCH	Methylcyclohexane					
113TMCP	1,1,3,-Trimethylcyclopentane					
ECP	Ethylcyclopentane					
124TMCP	1,2,4-Trimethylcyclopentane					
123TMCP	1,2,3-Trimethylcyclopentane					
TOL	Toluene					
NC8	Normal Alkane C8					
IP9	Isoprenoid C9					
MXYL	m-Xylene					
PXYL	p-Xylene					
OXYL	o-Xylene					
NC9	Normal Alkane C9	20.882	576	85		
IP10	Isoprenoid C10	22.822	190	34		
NC10	Normal Alkane C10	26.436	676	174		
IP11	Isoprenoid C11	27.878	283	72		
NC11	Normal Alkane C11	31.661	1226	314		
NC12	Normal Alkane C12	36.551	1940	468		
IP13	Isoprenoid C13	37.291	290	71		
IP14	Isoprenoid C14	40.035	2579	420		
NC13	Normal Alkane C13	41.134	2059	546		
IP15	Isoprenoid C15	44.553	1286	296		
NC14	Normal Alkane C14	45.440	4575	1176		
IP16	Isoprenoid C16	48.083	3443	618		
NC15	Normal Alkane C15	49.499	5282	1390		

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**G2040343.D**

Peak Label	Compound Name	Ret. Time	Area	Height	ppt (Area)	ppt (Hght)
NC16	Normal Alkane C16	53.343	6153	1799		
IP18	Isoprenoid C18	55.271	3600	666		
NC17	Normal Alkane C17	56.983	11242	3417		
IP19	Isoprenoid C19 (Pristane)	57.330	7752	1442		
PHEN	Phenanthrene	58.452	566	191		
NC18	Normal Alkane C18	60.449	25228	7664		
IP20	Isoprenoid C20 (Phytane)	60.903	8593	1287		
NC19	Normal Alkane C19	63.755	51645	15780		
NC20	Normal Alkane C20	66.910	84795	24883		
NC21	Normal Alkane C21	69.925	113946	32268		
C25HBI	Highly Branch Isoprenoid C25	70.149	5367	912		
NC22	Normal Alkane C22	72.809	129408	34804		
NC23	Normal Alkane C23	75.566	136456	36989		
NC24	Normal Alkane C24	78.212	121710	32908		
NC25	Normal Alkane C25	80.755	115294	29864		
NC26	Normal Alkane C26	83.200	99813	26615		
NC27	Normal Alkane C27	85.558	95287	24468		
NC28	Normal Alkane C28	87.834	77593	20122		
NC29	Normal Alkane C29	90.030	74125	18773		
NC30	Normal Alkane C30	92.151	51864	13556		
NC31	Normal Alkane C31	94.207	38596	9699		
NC32	Normal Alkane C32	96.197	26867	6912		
NC33	Normal Alkane C33	98.131	27821	6359		
NC34	Normal Alkane C34	100.006	20821	4934		
NC35	Normal Alkane C35	101.829	17432	4290		
NC36	Normal Alkane C36	103.728	12865	2656		
NC37	Normal Alkane C37	105.841	10106	1929		
NC38	Normal Alkane C38	108.232	6958	1184		
NC39	Normal Alkane C39	110.961	5267	743		
NC40	Normal Alkane C40	114.136	4634	515		
NC41	Normal Alkane C41	117.797	2962	311		

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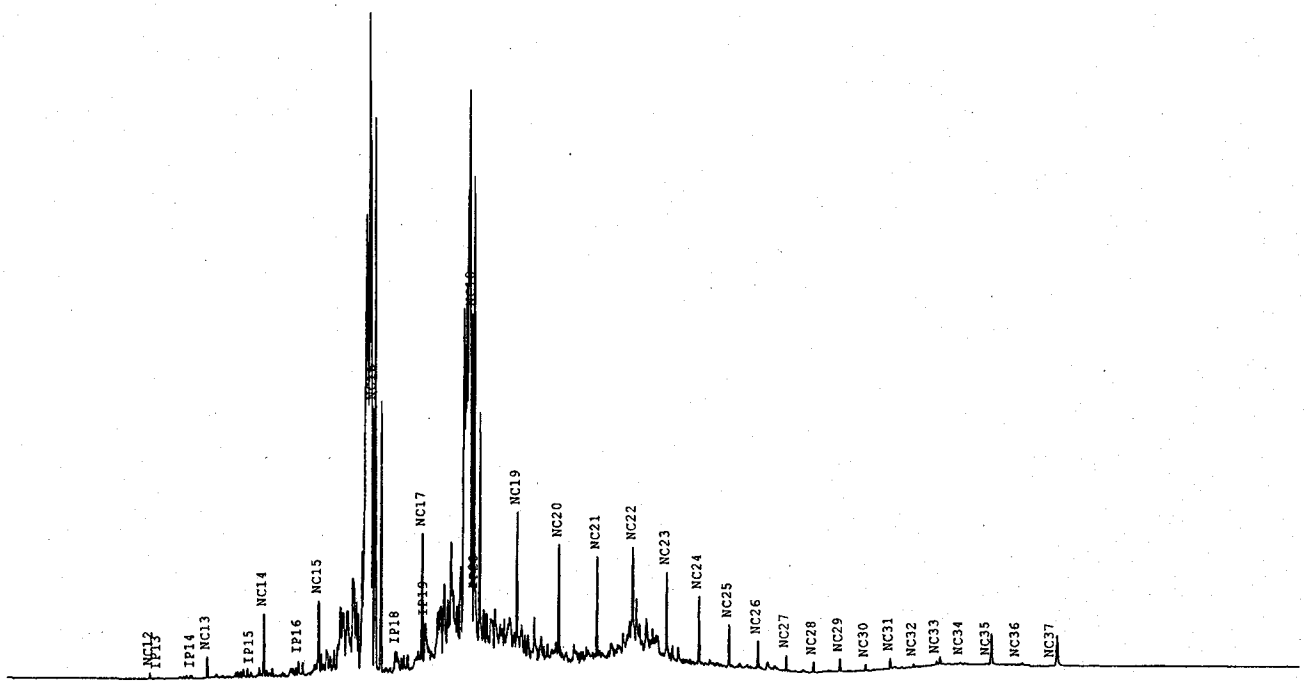
BASELINE DGSI
ANALYTICAL LABORATORIES

SATURATE GC

Company:	CONOCOPHILLIPS	**Client ID:**	US134005
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:		**Lab ID:**	CP272550
Lease:		**Sample Type:**	CUTTINGS
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	S. SIMPSON-1	**Geologic Age:**	
Latitude:		**Top Depth:**	3030 FT
Longitude:		**Bottom Depth:**	FT

Saturate GC Trace G6040123.D



SGC parameters	
Ratios	
Pristane/Phytane	1.96
Pristane/nC_{17}	0.47
Phytane/nC_{18}	0.11
nC_{18}/nC_{19}	2.08
nC_{17}/nC_{29}	9.84
CPI Marzi[4]	1.04

SGC parameters	
Resolved Components (%)	
Normal Paraffins	11.4
Isoprenoids	1.1
Resolved unknowns	87.5

GMC DATA REPORT 3 4 3

[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:**	**US134005**
Well Name:	**S. SIMPSON-1**	**Project #:**	**04-180-A**
Depth:	**3030 - FT**	**Lab ID:**	**CP272550**
Sampling Point:		**File Name:**	**G6040123.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	9.658	703	286	0.04	0.05
IP13	Isoprenoid C13	10.030	221	70	0.01	0.01
IP14	Isoprenoid C14	11.583	324	134	0.02	0.02
NC13	Normal Alkane C13	12.302	2684	1073	0.14	0.19
IP15	Isoprenoid C15	14.344	953	286	0.05	0.05
NC14	Normal Alkane C14	14.950	8309	3203	0.43	0.55
IP16	Isoprenoid C16	16.588	3149	736	0.16	0.13
NC15	Normal Alkane C15	17.524	10744	3665	0.56	0.63
NC16	Normal Alkane C16	20.021	32577	13200	1.69	2.29
IP18	Isoprenoid C18	21.152	3786	994	0.20	0.17
NC17	Normal Alkane C17	22.360	17925	6522	0.93	1.13
IP19	Isoprenoid C19 (Pristane)	22.494	8480	1980	0.44	0.34
NC18	Normal Alkane C18	24.650	40240	16464	2.09	2.85
IP20	Isoprenoid C20 (Phytane)	24.840	4337	1771	0.23	0.31
NC19	Normal Alkane C19	26.731	19301	7162	1.00	1.24
NC20	Normal Alkane C20	28.658	15505	5893	0.80	1.02
NC21	Normal Alkane C21	30.450	13539	5166	0.70	0.89
NC22	Normal Alkane C22	32.130	18730	5219	0.97	0.90
NC23	Normal Alkane C23	33.702	11738	4377	0.61	0.76
NC24	Normal Alkane C24	35.193	8978	3457	0.47	0.60
NC25	Normal Alkane C25	36.614	5944	2180	0.31	0.38
NC26	Normal Alkane C26	37.973	3837	1395	0.20	0.24
NC27	Normal Alkane C27	39.278	1974	803	0.10	0.14
NC28	Normal Alkane C28	40.533	1323	513	0.07	0.09
NC29	Normal Alkane C29	41.742	1821	635	0.09	0.11
NC30	Normal Alkane C30	42.913	803	321	0.04	0.06
NC31	Normal Alkane C31	44.041	1520	526	0.08	0.09
NC32	Normal Alkane C32	45.136	412	165	0.02	0.03
NC33	Normal Alkane C33	46.196	586	181	0.03	0.03
NC34	Normal Alkane C34	47.308	420	95	0.02	0.02
NC35	Normal Alkane C35	48.546	283	62	0.01	0.01
NC36	Normal Alkane C36	49.928	169	31	0.01	0.01
NC37	Normal Alkane C37	51.539	261	40	0.01	0.01
NC38	Normal Alkane C38					
NC39	Normal Alkane C39					
NC40	Normal Alkane C40					

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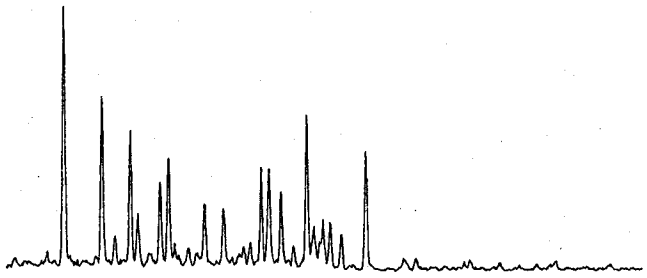
BASELINE DGSI
ANALYTICAL LABORATORIES

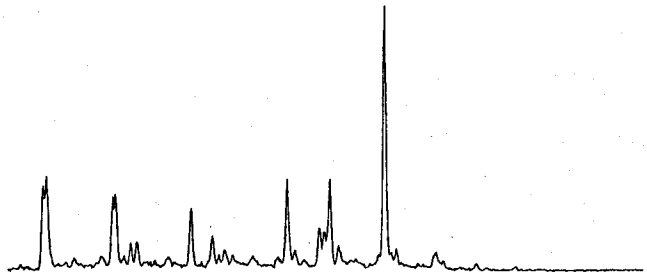
SATURATE GCMSMS

Company:	CONOCOPHILLIPS	**Project #:**	04-180-A	
Country:	UNITED STATES	**Lab ID:**	CP272549	
Basin:		**Client ID:**	US134004	
Lease:		**Sample Type:**	CORE	
Block:		**Sampling Point:**		
Field:		**Formation:**		
Well Name:	EAST TOPAGORUK-1	**Geologic Age:**		
Latitude:		**Top Depth:**	2249	FT
Longitude:		**Bottom Depth:**		FT

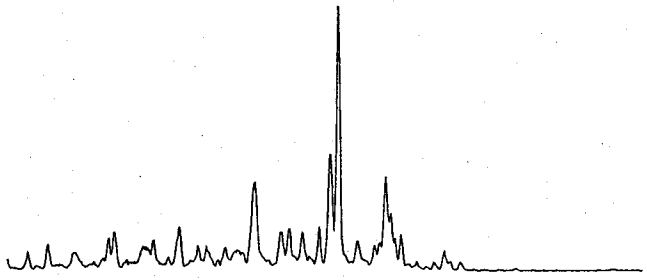
358->217: C26 Steranes MS040176.D



414->217: C30 Steranes



414->231: C30 Methylsteranes



RATIOS (on Area)[1]		Appl[2]	TEV[3]
Steranes			
%27 Steranes	21.7	D	
%28 Steranes	27.5	D	
%29 Steranes	50.9	D	
%27 Diasteranes	32.9	D	
%28 Diasteranes	28.0	D	
%29 Diasteranes	39.1	D	
C30 Sterane Index	0.05	D	
C30 iso/n-propyl sterane Index	0.07	A	
C27 αββ/(ααα+αββ)	0.45	M	
C28 αββ/(ααα+αββ)	0.55	M	
C29 αββ/(ααα+αββ)	0.45	M	
C30 αββ/(ααα+αββ)	0.23	M	
C27 S/(S+R)	0.43	M	
C28 S/(S+R)	0.29	M	
C29 S/(S+R)	0.25	M	
C30 S/(S+R)	0.21	M	
Diasteranes/Steranes	0.91		
24-Nordiacholestane ratio (NDR)	0.61	A	
24-Norcholestane ratio (NCR)	0.64	A	
21-Norcholestane ratio	0.07	D/M	
Dinosterane ratio	0.30	A	
4-Methyl sterane ratio	0.08	A	
Terpane Ratios			
Oleanane Index (%)	2.1	A	
DesA Oleanane Index (%)	62.7	A	
Gammacerane Index (%)	0.4	D	
Bicadinane Index (%)		A/D	
DiaHopane Index (%)	4.9	D	
TPP	0.08	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:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Lab ID:**	**CP272549**
Top Depth:	**2249 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040176.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1RES 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	49.518	3675841	100.0	100.0
358.3–>217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.619	327901	8.9	8.9
D26N24baR	13β,17α,24-nordiacholestane 20R	51.697	225007	6.1	6.1
D26N27baS	13β,17α,27-nordiacholestane 20S	52.517	187199	5.1	5.1
D26N24abS	13α,17β,24-nordiacholestane 20S	52.727	72425	2.0	2.0
D26N24abR	13α,17β,24-nordiacholestane 20R	53.360	129759	3.5	3.5
D26N27baR	13β,17α,27-nordiacholestane 20R	53.594	159890	4.4	4.4
D26N27abS	13α,17β,27-nordiacholestane 20S	54.625	90205	2.5	2.5
D26N27abR	13α,17β,27-nordiacholestane 20R	55.164	86821	2.4	2.4
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	56.241	125714	3.4	3.4
S26N24abbR	5α,14β,17β,24-norcholestane 20R	56.452	151548	4.1	4.1
S26N24abbS	5α,14β,17β,24-norcholestane 20S	56.803	102611	2.8	2.8
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.530	207542	5.6	5.6
S26N21	21-norcholestane	57.740	74003	2.0	2.0
S26N27baaR	5β,14α,17α,27-norcholestane 20S	57.881	31724	0.9	0.9
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	57.998	67756	1.8	1.8
S26N27abbR	5α,14β,17β,27-norcholestane 20R	58.186	64214	1.7	1.7
S26N27abbS	5α,14β,17β,27-norcholestane 20S	59.193	44390	1.2	1.2
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	59.193	157578	4.3	4.3
372.3–>217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.625	2667694	72.6	58.3
D27baR	13β,17α-diacholestane 20R	55.937	1688214	45.9	48.7
D27abS	13α,17β-diacholestane 20S	56.921	618665	16.8	11.8
D27abR	13α,17β-diacholestane 20R	57.576	757320	20.6	22.0
S27aaaS	5α,14α,17α-cholestane 20S	60.247	897304	24.4	18.4
S27abbR	5α,14β,17β-cholestane 20R	60.575	536914	14.6	18.3
S27abbS	5α,14β,17β-cholestane 20S	60.879	445506	12.1	16.1
S27aaaR	5α,14α,17α-cholestane 20R	61.652	1050548	28.6	24.4
386.4–>217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.764	1067860	29.1	25.7
D28baSB	13β,17α-diaergostane 20S (24S)	57.951	1022948	27.8	26.8
D28baRA	13β,17α-diaergostane 20R (24R)	59.216	712982	19.4	16.8
D28baRB	13β,17α-diaergostane 20R (24R)	59.357	802907	21.8	21.7
D28abS	13α,17β-diaergostane 20S	60.130	535111	14.6	14.6
D28abRA	13α,17β-diaergostane 20R	61.020	386387	10.5	10.5
D28abRB	13α,17β-diaergostane 20R	61.137	292891	8.0	8.0
C28UNK9	C28 Unknown 9	61.887	367874	10.0	10.0
S28aaaSA	5α,14α,17α-ergostane 20S	63.597	216087	5.9	6.0
S28aaaSB	5α,14α,17α-ergostane 20S	63.737	261514	7.1	6.5
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	64.089	930034	25.3	37.0
S28abbS	5α,14β,17β-ergostane 20S	64.393	433462	11.8	17.1
S28N21	21-norstigmastane	64.768	112136	3.1	3.1
S28aaaR	5α,14α,17α-ergostane 20R	65.377	1091339	29.7	31.2

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Lab ID:**	**CP272549**
Top Depth:	**2249 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040176.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1RES 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	60.598	2973304	80.9	66.5
D29baR	13β,17α-diastigmastane 20R	62.144	2354116	64.0	60.9
D29abS	13α,17β-diastigmastane 20S	62.777	858770	23.4	23.4
D29abR	13α,17β-diastigmastane 20R	63.972	1192211	32.4	32.4
C29UNK5	C29 Unknown 5	64.838	901268	24.5	24.5
S29aaaS	5α,14α,17α-stigmastane 20S	66.408	946453	25.7	24.8
S29abbR	5α,14β,17β-stigmastane 20R	66.993	724133	19.7	24.7
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	67.157	1650432	44.9	57.3
S29aaaR	5α,14α,17α-stigmastane 20R	68.422	3378860	91.9	74.4
414.4->217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.847	108439	3.0	3.0
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.917	126100	3.4	2.5
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.534	178742	4.9	5.5
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	64.909	32047	0.9	0.9
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	65.049	35624	1.0	1.0
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	66.361	86542	2.4	2.4
DC30UNK7	dia-C30 Unknown 7	66.853	43969	1.2	1.2
DC30UNK8	dia-C30 Unknown 8	67.017	15464	0.4	0.4
DC30UNK8A	dia-C30 Unknown 8A	67.157	30034	0.8	0.8
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.633	121328	3.3	3.2
C30UNK10	C30 Unknown 10	68.820	26542	0.7	0.7
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S	69.031	15911	0.4	0.4
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	69.383	64993	1.8	2.5
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.523	45012	1.2	1.9
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.640	121678	3.3	3.3
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R	69.851	38584	1.1	1.1
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.928	351523	9.6	11.6
C30UNK14	C30 Unknown 14	71.069	12694	0.3	0.3
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R	71.186	25827	0.7	0.7
C30UNK16	C30 Unknown 16	72.123	41048	1.117	1.117
386.4->231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S	56.124	47069	1.3	1.3
DC28UNK16	dia-C28 Unknown 16	56.897	28907	0.8	0.8
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R	57.506	46488	1.3	1.3
DC28UNK3	dia-C28 Unknown 3	57.717	25376	0.7	0.7
DC28UNK17	dia-C28 Unknown 17	58.232	20962	0.6	0.6
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	58.724	159890	4.4	4.4
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	60.036	102495	2.8	2.8
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	61.793	90828	2.5	2.5
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	62.168	78757	2.1	2.1
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	62.449	84617	2.3	2.3
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	62.964	109245	3.0	3.0
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	63.128	92389	2.5	2.5
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	63.199	163902	4.5	4.5
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	63.409	104152	2.8	2.8
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	64.346	212492	5.8	5.8
XS28aaaR	5α,14α,17α-ergostane 20R	65.400	43014	1.2	1.2

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Lab ID:**	**CP272549**
Top Depth:	**2249 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040176.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1RES 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	59.169	19517	0.5	0.5
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S	59.404	18284	0.5	0.5
DC29UNK27	dia-C29 Unknown 27	59.942	19455	0.5	0.5
DC29UNK28	dia-C29 Unknown 28	60.130	9587	0.3	0.3
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R	60.715	11538	0.3	0.3
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R	60.856	16260	0.4	0.4
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S	61.793	84992	2.3	2.3
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S	61.957	92871	2.5	2.5
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R	63.245	57516	1.6	1.6
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R	63.362	63753	1.7	1.7
D294MabS	4α-Methyl-13α,17β-diaergostane 20S	64.136	65462	1.8	1.8
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R	65.002	59708	1.6	1.6
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R	65.096	80213	2.2	2.2
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S	65.213	39369	1.1	1.1
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R	65.635	33001	0.9	0.9
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S	65.916	53953	1.5	1.5
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S	66.244	53430	1.5	1.5
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S	66.361	79474	2.2	2.2
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R	66.595	146981	4.0	4.0
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R	66.853	262938	7.2	7.2
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R	67.954	288184	7.8	7.8
XS29aaaR	5α,14α,17α-stigmastane 20R	68.422	124063	3.4	3.4
414.4–>231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S				
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	67.860	301935	8.2	8.2
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	68.493	109904	3.0	3.0
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.68	101413	2.8	2.8
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	68.984	102430	2.8	2.8
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	69.383	85397	2.3	2.3
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.640	337684	9.2	9.2
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.828	675516	18.4	18.4
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane	70.273	76807	2.1	2.1
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane	70.694	44524	1.2	1.2
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	70.952	240273	6.5	6.5
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane	71.069	106216	2.9	2.9
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane	71.303	67163	1.8	1.8

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Lab ID:**	**CP272549**
Top Depth:	**2249 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040176.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1RES 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	69.734	18702	0.5	0.5
PP1	Tetracyclic polyprenoid	69.921	27790	0.8	0.8
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	70.038	35757	1.0	1.0
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S	70.343	12133	0.3	0.3
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R	71.092	42061	1.1	1.1
414.2->191.2: Pentacyclic *Triterpenoids*					
REARNGHOP	Rearranged hopane	63.503	111616	3.0	3.0
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane	66.736	20007	0.5	0.5
TRITERP14	C30 unknown triterpane	66.900	32533	0.9	0.9
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid	67.649	24048	0.7	0.7
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane	68.071	81831	2.2	2.2
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane	68.469	57968	1.6	1.6
TRITERP17A	C30 plant terpane				
DH30	Diahopane	69.078	303763	8.3	8.3
TRITERP18	C30 unknown triterpane	69.547	29725	0.8	0.8
OL18a	18α Oleanane	70.694	75255	2.0	2.0
OL18b	18β Oleanane	70.788	53013	1.4	1.4
H30ab	17α, 21β-Hopane	71.092	4164547	113.3	160.0
H30N30	30-Norhomohopane	71.350	87263	2.4	2.4
H30TS	18α,17β-Neohopane	71.725	151675	4.1	4.1
H30aa	17α, 21α-Hopane	71.982	192532	5.2	5.2
H30ba	17β, 21α-Hopane (Moretane)	72.287	603951	16.4	35.3
GamA	Gammacerane-A	74.933	56405	1.5	0.5
GamB	Gammacerane-B	75.121	32463	0.9	0.2
414.2->313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)				
B30T1	Bicadinane T1				
B30R	Bicadinane R				
274.3->203.2: Norpregnanes					
NORPREG1	Norpregnane-1				
NORPREG2	Norpregnane-2				
NORPREG3_4	Norpregnane-3+Norpregnane-4	30.216	107747	2.9	2.9
NORPREG5	Norpregnane-5				
NORPREG6	Norpregnane-6	30.802	90531	2.5	2.5
NORPREG7	Norpregnane-7	31.317	43967	1.2	1.2
NORPREG8_9	Norpregnane-8+Norpregnane-9	31.832	239185	6.5	6.5
NORPREG10	Norpregnane-10	32.137	64126	1.7	1.7
NORPREG11	Norpregnane-11	32.839	113070	3.1	3.1
NORPREG12	Norpregnane-12	33.636	21253	0.6	0.6

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Lab ID:**	**CP272549**
Top Depth:	**2249 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040176.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1RES 70EV 700UA 250C AR=4E-7MBAR CE=25**		

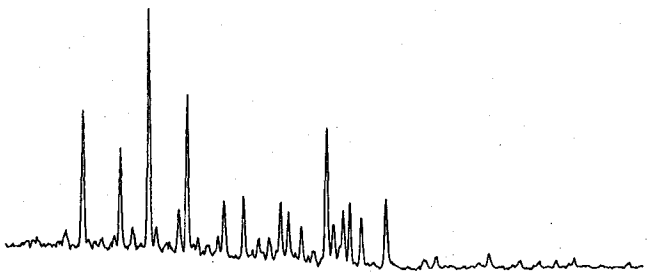
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	45.630	603363	16.4	16.4
DesALUP	Des-A-Lupane	45.747	47416	1.3	1.3
DesATARAX	Des-A-Taraxastane	49.003	150126	4.1	4.1
DesEHOP	Des-E-Hopane	50.385	358599	9.8	9.8
410.4->218.2: 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	71.327	96487	2.6	2.6
H31abS	C31 22S 2α-Methylhopane	74.324	377818	10.3	10.3
H31abR	C31 22R 2α-Methylhopane	74.699	445204	12.1	12.1
H313Mab	C31 3β-Methylhopane	75.121	58233	1.6	1.6

BASELINE DGSI ANALYTICAL LABORATORIES

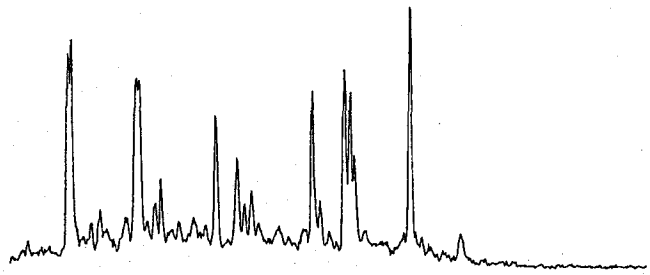
SATURATE GCMSMS

Company:	CONOCOPHILLIPS	**Project #:**	04-180-A	
Country:	UNITED STATES	**Lab ID:**	CP273044	
Basin:	NORTH SLOPE	**Client ID:**	US134514	
Lease:		**Sample Type:**	CORE	
Block:		**Sampling Point:**		
Field:		**Formation:**		
Well Name:	OUMALIK 1	**Geologic Age:**		
Latitude:		**Top Depth:**	989	FT
Longitude:		**Bottom Depth:**		FT

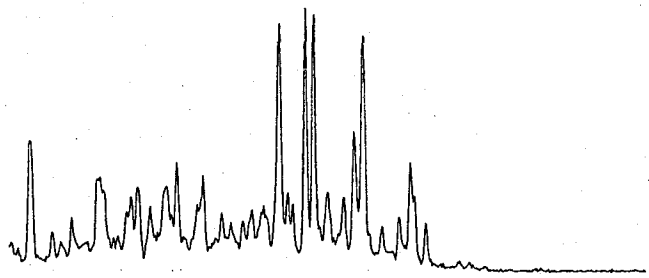
358->217: C26 Steranes MS040258.D



414->217: C30 Steranes



414->231: C30 Methylsteranes



RATIOS (on Area)[1]		Appl[2]	TEV[3]
Steranes			
%27 Steranes	22.2	D	
%28 Steranes	27.4	D	
%29 Steranes	50.4	D	
%27 Diasteranes	26.1	D	
%28 Diasteranes	23.9	D	
%29 Diasteranes	49.9	D	
C30 Sterane Index	0.04	D	
C30 iso/n-propyl sterane Index	0.06	A	
C27 αββ/(ααα+αββ)	0.51	M	
C28 αββ/(ααα+αββ)	0.57	M	
C29 αββ/(ααα+αββ)	0.58	M	
C30 αββ/(ααα+αββ)	0.50	M	
C27 S/(S+R)	0.41	M	
C28 S/(S+R)	0.34	M	
C29 S/(S+R)	0.46	M	
C30 S/(S+R)	0.33	M	
Diasteranes/Steranes	0.97		
24-Nordiacholestane ratio (NDR)	0.38	A	
24-Norcholestane ratio (NCR)	0.57	A	
21-Norcholestane ratio	0.09	D/M	
Dinosterane ratio	0.40	A	
4-Methyl sterane ratio	0.04	A	
Terpane Ratios			
Oleanane Index (%)		A	
DesA Oleanane Index (%)	10.1	A	
Gammacerane Index (%)	0.3	D	
Bicadinane Index (%)	0.6	A/D	
DiaHopane Index (%)	7.4	D	
TPP	0.08	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:**	**US134514**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273044**
Top Depth:	**989 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040258.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	49.083	507592	100.0	100.0
358.3–>217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.184	61335	12.1	12.1
D26N24baR	13β,17α,24-nordiacholestane 20R	51.261	40801	8.0	8.0
D26N27baS	13β,17α,27-nordiacholestane 20S	52.080	97597	19.2	19.2
D26N24abS	13α,17β,24-nordiacholestane 20S	52.291	11444	2.3	2.3
D26N24abR	13α,17β,24-nordiacholestane 20R	52.924	21075	4.2	4.2
D26N27baR	13β,17α,27-nordiacholestane 20R	53.158	70261	13.8	13.8
D26N27abS	13α,17β,27-nordiacholestane 20S	54.188	25079	4.9	4.9
D26N27abR	13α,17β,27-nordiacholestane 20R	54.727	27842	5.5	5.5
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	55.804	28371	5.6	5.6
S26N24abbR	5α,14β,17β,24-norcholestane 20R	56.015	27379	5.4	5.4
S26N24abbS	5α,14β,17β,24-norcholestane 20S	56.366	19064	3.8	3.8
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.092	64773	12.8	12.8
S26N21	21-norcholestane	57.279	23667	4.7	4.7
S26N27baaR	5β,14α,17α,27-norcholestane 20S	57.466	9387	1.8	1.8
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	57.560	23868	4.7	4.7
S26N27abbR	5α,14β,17β,27-norcholestane 20R	57.747	27180	5.4	5.4
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.754	23423	4.6	4.6
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	58.754	32200	6.3	6.3
372.3–>217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.188	1052338	207.3	147.6
D27baR	13β,17α-diacholestane 20R	55.499	652521	128.6	122.3
D27abS	13α,17β-diacholestane 20S	56.460	227235	44.8	26.4
D27abR	13α,17β-diacholestane 20R	57.139	297744	58.7	55.2
S27aaaS	5α,14α,17α-cholestane 20S	59.808	372620	73.4	47.4
S27abbR	5α,14β,17β-cholestane 20R	60.136	301269	59.4	63.4
S27abbS	5α,14β,17β-cholestane 20S	60.417	261475	51.5	57.3
S27aaaR	5α,14α,17α-cholestane 20R	61.213	480260	94.6	67.7
386.4–>217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.303	386283	76.1	69.0
D28baSB	13β,17α-diaergostane 20S (24S)	57.513	399461	78.7	73.8
D28baRA	13β,17α-diaergostane 20R (24R)	58.778	248815	49.0	41.8
D28baRB	13β,17α-diaergostane 20R (24R)	58.895	321818	63.4	62.4
D28abS	13α,17β-diaergostane 20S	59.691	203088	40.0	40.0
D28abRA	13α,17β-diaergostane 20R	60.581	145520	28.7	28.7
D28abRB	13α,17β-diaergostane 20R	60.675	120451	23.7	23.7
C28UNK9	C28 Unknown 9	61.447	172344	34.0	34.0
S28aaaSA	5α,14α,17α-ergostane 20S	63.133	113976	22.5	22.1
S28aaaSB	5α,14α,17α-ergostane 20S	63.274	123550	24.3	19.9
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	63.625	381159	75.1	100.6
S28abbS	5α,14β,17β-ergostane 20S	63.930	248498	49.0	66.0
S28N21	21-norstigmastane	64.374	53588	10.6	10.6
S28aaaR	5α,14α,17α-ergostane 20R	64.913	434571	85.6	83.0

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273044**
Top Depth:	**989 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040258.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	60.159	1249336	246.1	256.8
D29baR	13β,17α-diastigmastane 20R	61.682	1053164	207.5	258.5
D29abS	13α,17β-diastigmastane 20S	62.337	335302	66.1	66.1
D29abR	13α,17β-diastigmastane 20R	63.508	446529	88.0	88.0
C29UNK5	C29 Unknown 5	64.234	416527	82.1	82.1
S29aaaS	5α,14α,17α-stigmastane 20S	65.943	480469	94.7	103.4
S29abbR	5α,14β,17β-stigmastane 20R	66.529	529774	104.4	152.5
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	66.740	534323	105.3	155.9
S29aaaR	5α,14α,17α-stigmastane 20R	67.957	629718	124.1	123.5
414.4->217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.384	34857	6.9	9.8
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.478	31639	6.2	7.6
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.023	56804	11.2	18.8
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	64.468	9271	1.8	1.8
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	64.585	10230	2.0	2.0
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	65.873	24803	4.9	4.9
DC30UNK7	dia-C30 Unknown 7	66.388	18452	3.6	3.6
DC30UNK8	dia-C30 Unknown 8	66.552	7409	1.5	1.5
DC30UNK8A	dia-C30 Unknown 8A	66.716	11462	2.3	2.3
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.168	28527	5.6	7.6
C30UNK10	C30 Unknown 10	68.332	7572	1.5	1.5
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S	68.543	3820	0.8	0.8
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	68.918	32274	6.4	12.5
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.058	24893	4.9	10.7
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.152	15035	3.0	3.0
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R	69.409	6179	1.2	1.2
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.440	45741	9.0	15.7
C30UNK14	C30 Unknown 14	70.580	3564	0.7	0.7
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R	70.721	3133	0.6	0.6
C30UNK16	C30 Unknown 16	71.634	8111	1.598	1.598
386.4->231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S	55.687	31647	6.2	6.2
DC28UNK16	dia-C28 Unknown 16	56.460	11142	2.2	2.2
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R	57.068	26196	5.2	5.2
DC28UNK3	dia-C28 Unknown 3	57.256	11938	2.4	2.4
DC28UNK17	dia-C28 Unknown 17	57.794	11139	2.2	2.2
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	58.263	47062	9.3	9.3
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	59.574	22211	4.4	4.4
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	61.354	46541	9.2	9.2
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	61.728	38264	7.5	7.5
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	62.009	41658	8.2	8.2
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	62.525	26119	5.1	5.1
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	62.688	23739	4.7	4.7
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	62.735	42105	8.3	8.3
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	62.969	25730	5.1	5.1
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	63.883	34785	6.9	6.9
XS28aaaR	5α,14α,17α-ergostane 20R	64.937	15796	3.1	3.1

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273044**
Top Depth:	**989 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040258.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	58.731	13573	2.7	2.7
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S	58.942	11715	2.3	2.3
DC29UNK27	dia-C29 Unknown 27	59.480	5592	1.1	1.1
DC29UNK28	dia-C29 Unknown 28	59.714	5108	1.0	1.0
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R	60.276	8039	1.6	1.6
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R	60.440	10498	2.1	2.1
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S	61.330	19566	3.9	3.9
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S	61.518	22387	4.4	4.4
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R	62.759	12951	2.6	2.6
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R	62.899	17815	3.5	3.5
D294MabS	4α-Methyl-13α,17β-diaergostane 20S	63.695	14197	2.8	2.8
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R	64.538	19830	3.9	3.9
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R	64.656	20155	4.0	4.0
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S	64.773	17744	3.5	3.5
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R	65.171	31884	6.3	6.3
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S	65.452	34312	6.8	6.8
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S	65.780	11452	2.3	2.3
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S	65.920	30608	6.0	6.0
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R	66.107	29519	5.8	5.8
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R	66.412	66258	13.1	13.1
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R	67.512	49627	9.8	9.8
XS29aaaR	5α,14α,17α-stigmastane 20R	67.957	21041	4.1	4.1
414.4->231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S	67.021	17995	3.5	3.5
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	67.395	79791	15.7	15.7
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)	67.583	14655	2.9	2.9
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S	67.723	11614	2.3	2.3
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R	68.004	69750	13.7	13.7
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.215	61374	12.1	12.1
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	68.543	24334	4.8	4.8
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	68.918	18763	3.7	3.7
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.152	41137	8.1	8.1
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.363	73218	14.4	14.4
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane	69.808	9371	1.8	1.8
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane	70.206	14089	2.8	2.8
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	70.463	29407	5.8	5.8
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane	70.580	14034	2.8	2.8
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane	70.838	11264	2.2	2.2

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273044**
Top Depth:	**989 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040258.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	69.316	5145	1.0	1.0
PP1	Tetracyclic polyprenoid	69.433	11570	2.3	2.3
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	69.597	17707	3.5	3.5
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S	69.878	7706	1.5	1.5
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R	70.604	9140	1.8	1.8
414.2->191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	63.040	129103	25.4	25.4
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane	66.435	19551	3.9	3.9
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane	67.606	91880	18.1	18.1
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane	68.004	16453	3.2	3.2
TRITERP17A	C30 plant terpane				
DH30	Diahopane	68.590	329863	65.0	65.0
TRITERP18	C30 unknown triterpane	69.081	26560	5.2	5.2
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	70.604	2306477	454.4	818.0
H30N30	30-Norhomohopane	70.861	56930	11.2	11.2
H30TS	18α,17β-Neohopane	71.213	104238	20.5	20.5
H30aa	17α, 21α-Hopane	71.494	74585	14.7	14.7
H30ba	17β, 21α-Hopane (Moretane)	71.798	205602	40.5	96.0
GamA	Gammacerane-A	74.445	29611	5.8	2.0
GamB	Gammacerane-B	74.609	12809	2.5	0.8
414.2->313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)	63.18	16593	3.269	3.3
B30T1	Bicadinane T1	63.81	4138	0.815	0.8
B30R	Bicadinane R	64.89	2973	0.586	0.6
274.3->203.2: Norpregnanes					
NORPREG1	Norpregnane-1				
NORPREG2	Norpregnane-2				
NORPREG3_4	Norpregnane-3+Norpregnane-4	29.787	20739	4.1	4.1
NORPREG5	Norpregnane-5				
NORPREG6	Norpregnane-6	30.349	28357	5.6	5.6
NORPREG7	Norpregnane-7	30.911	6274	1.2	1.2
NORPREG8_9	Norpregnane-8+Norpregnane-9	31.403	62270	12.3	12.3
NORPREG10	Norpregnane-10	31.684	24461	4.8	4.8
NORPREG11	Norpregnane-11	32.387	35903	7.1	7.1
NORPREG12	Norpregnane-12				

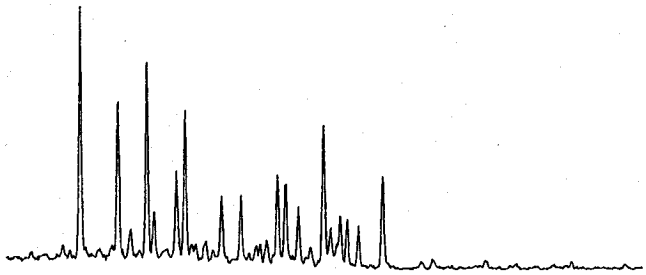
Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273044**
Top Depth:	**989 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040258.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 250C AR=4E-7MBAR CE=25**		

Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	45.172	31198	6.1	6.1
DesALUP	Des-A-Lupane	45.290	9329	1.8	1.8
DesATARAX	Des-A-Taraxastane	48.498	29657	5.8	5.8
DesEHOP	Des-E-Hopane	49.926	276659	54.5	54.5
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	70.838	65011	12.8	12.8
H31abS	C31 22S 2α-Methylhopane	73.813	184622	36.4	36.4
H31abR	C31, 22R 2α-Methylhopane	74.187	137942	27.2	27.2
H313Mab	C31 3β-Methylhopane	74.632	30948	6.1	6.1

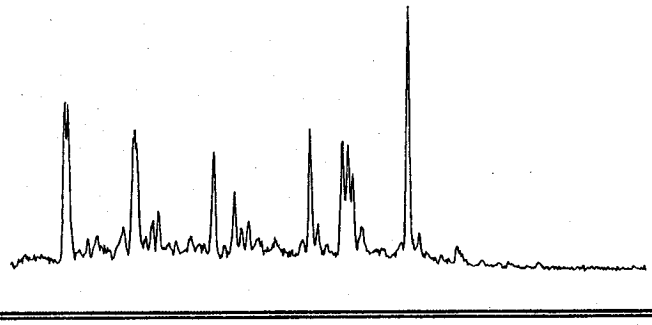
BASELINE DGSI ANALYTICAL LABORATORIES — SATURATE GCMSMS

Company:	CONOCOPHILLIPS	Project #:	04-180-A	
Country:	UNITED STATES	Lab ID:	CP273046	
Basin:	NORTH SLOPE	Client ID:	US134516	
Lease:		Sample Type:	CORE	
Block:		Sampling Point:		
Field:		Formation:		
Well Name:	OUMALIK 1	Geologic Age:		
Latitude:		Top Depth:	1625	FT
Longitude:		Bottom Depth:		FT

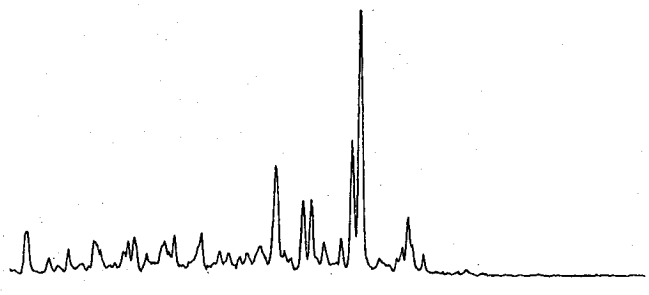
358->217: C26 Steranes MS040259.D



414->217: C30 Steranes



414->231: C30 Methylsteranes



RATIOS (on Area)[1]		Appl[2]	TEV[3]
Steranes			
%27 Steranes	18.3	D	
%28 Steranes	23.1	D	
%29 Steranes	58.5	D	
%27 Diasteranes	25.8	D	
%28 Diasteranes	23.0	D	
%29 Diasteranes	51.2	D	
C30 Sterane Index	0.04	D	
C30 iso/n-propyl sterane Index	0.07	A	
C27 αββ/(ααα+αββ)	0.53	M	
C28 αββ/(ααα+αββ)	0.59	M	
C29 αββ/(ααα+αββ)	0.48	M	
C30 αββ/(ααα+αββ)	0.45	M	
C27 S/(S+R)	0.45	M	
C28 S/(S+R)	0.32	M	
C29 S/(S+R)	0.28	M	
C30 S/(S+R)	0.28	M	
Diasteranes/Steranes	1.10		
24-Nordiacholestane ratio (NDR)	0.54	A	
24-Norcholestane ratio (NCR)	0.63	A	
21-Norcholestane ratio	0.07	D/M	
Dinosterane ratio	0.20	A	
4-Methyl sterane ratio	0.03	A	
Terpane Ratios			
Oleanane Index (%)		A	
DesA Oleanane Index (%)	34.5	A	
Gammacerane Index (%)	0.3	D	
Bicadinane Index (%)	0.6	A/D	
DiaHopane Index (%)	5.6	D	
TPP	0.06	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:**	**US134516**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273046**
Top Depth:	**1625 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040259.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	49.003	775801	100.0	100.0
358.3–>217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.104	65643	8.5	8.5
D26N24baR	13β,17α,24-nordiacholestane 20R	51.181	43718	5.6	5.6
D26N27baS	13β,17α,27-nordiacholestane 20S	52.001	51840	6.7	6.7
D26N24abS	13α,17β,24-nordiacholestane 20S	52.212	14938	1.9	1.9
D26N24abR	13α,17β,24-nordiacholestane 20R	52.845	24854	3.2	3.2
D26N27baR	13β,17α,27-nordiacholestane 20R	53.079	41991	5.4	5.4
D26N27abS	13α,17β,27-nordiacholestane 20S	54.110	20030	2.6	2.6
D26N27abR	13α,17β,27-nordiacholestane 20R	54.648	20188	2.6	2.6
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	55.702	25898	3.3	3.3
S26N24abbR	5α,14β,17β,24-norcholestane 20R	55.937	27013	3.5	3.5
S26N24abbS	5α,14β,17β,24-norcholestane 20S	56.288	18394	2.4	2.4
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.014	41219	5.3	5.3
S26N21	21-norcholestane	57.202	13725	1.8	1.8
S26N27baaR	5β,14α,17α,27-norcholestane 20S	57.366	5325	0.7	0.7
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	57.459	15215	2.0	2.0
S26N27abbR	5α,14β,17β,27-norcholestane 20R	57.670	13621	1.8	1.8
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.654	11008	1.4	1.4
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	58.654	26861	3.5	3.5
372.3–>217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.110	560698	72.3	51.5
D27baR	13β,17α-diacholestane 20R	55.398	322852	41.6	39.6
D27abS	13α,17β-diacholestane 20S	56.382	112803	14.5	8.6
D27abR	13α,17β-diacholestane 20R	57.061	139366	18.0	16.9
S27aaaS	5α,14α,17α-cholestane 20S	59.708	148713	19.2	12.4
S27abbR	5α,14β,17β-cholestane 20R	60.036	122432	15.8	16.9
S27abbS	5α,14β,17β-cholestane 20S	60.317	98488	12.7	14.1
S27aaaR	5α,14α,17α-cholestane 20R	61.114	166266	21.4	15.3
386.4–>217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.225	200566	25.9	23.4
D28baSB	13β,17α-diaergostane 20S (24S)	57.436	200772	25.9	24.3
D28baRA	13β,17α-diaergostane 20R (24R)	58.677	129992	16.8	14.3
D28baRB	13β,17α-diaergostane 20R (24R)	58.818	152478	19.7	19.3
D28abS	13α,17β-diaergostane 20S	59.591	97428	12.6	12.6
D28abRA	13α,17β-diaergostane 20R	60.481	71170	9.2	9.2
D28abRB	13α,17β-diaergostane 20R	60.598	51641	6.7	6.7
C28UNK9	C28 Unknown 9	61.348	61550	7.9	7.9
S28aaaSA	5α,14α,17α-ergostane 20S	63.058	38332	4.9	4.9
S28aaaSB	5α,14α,17α-ergostane 20S	63.175	45646	5.9	4.8
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	63.550	162974	21.0	28.1
S28abbS	5α,14β,17β-ergostane 20S	63.831	89648	11.6	15.6
S28N21	21-norstigmastane	64.300	16116	2.1	2.1
S28aaaR	5α,14α,17α-ergostane 20R	64.815	164726	21.2	20.6

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273046**
Top Depth:	**1625 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040259.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	60.060	716750	92.4	96.4
D29baR	13β,17α-diastigmastane 20R	61.606	527781	68.0	84.7
D29abS	13α,17β-diastigmastane 20S	62.238	192542	24.8	24.8
D29abR	13α,17β-diastigmastane 20R	63.433	250253	32.3	32.3
C29UNK5	C29 Unknown 5	64.159	174191	22.5	22.5
S29aaaS	5α,14α,17α-stigmastane 20S	65.846	195308	25.2	27.5
S29abbR	5α,14β,17β-stigmastane 20R	66.455	202587	26.1	38.1
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	66.642	271952	35.1	51.9
S29aaaR	5α,14α,17α-stigmastane 20R	67.884	543562	70.1	69.8
414.4->217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.308	13994	1.8	2.6
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.379	14989	1.9	2.4
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	63.972	23731	3.1	5.1
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	64.393	4153	0.5	0.5
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	64.510	5058	0.7	0.7
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	65.822	11928	1.5	1.5
DC30UNK7	dia-C30 Unknown 7	66.314	7347	0.9	0.9
DC30UNK8	dia-C30 Unknown 8	66.455	2852	0.4	0.4
DC30UNK8A	dia-C30 Unknown 8A	66.642	4051	0.5	0.5
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.094	12588	1.6	2.2
C30UNK10	C30 Unknown 10	68.282	2956	0.4	0.4
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S	68.516	1336	0.2	0.2
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	68.867	12107	1.6	3.1
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	68.984	11760	1.5	3.3
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.102	6748	0.9	0.9
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R	69.289	4255	0.5	0.5
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.390	25368	3.3	5.7
C30UNK14	C30 Unknown 14	70.507	1200	0.2	0.2
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R	70.647	3339	0.4	0.4
C30UNK16	C30 Unknown 16	71.561	3338	0.43	0.43
386.4->231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S	55.609	13394	1.7	1.7
DC28UNK16	dia-C28 Unknown 16	56.405	5282	0.7	0.7
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R	56.967	10255	1.3	1.3
DC28UNK3	dia-C28 Unknown 3	57.178	6502	0.8	0.8
DC28UNK17	dia-C28 Unknown 17	57.764	3571	0.5	0.5
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	58.186	24040	3.1	3.1
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	59.474	13028	1.7	1.7
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	61.254	17621	2.3	2.3
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	61.629	14703	1.9	1.9
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	61.810	16296	2.1	2.1
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	62.449	14851	1.9	1.9
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	62.613	13524	1.7	1.7
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	62.636	18321	2.4	2.4
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	62.871	11043	1.4	1.4
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	63.808	18351	2.4	2.4
XS28aaaR	5α,14α,17α-ergostane 20R	64.838	5911	0.8	0.8

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273046**
Top Depth:	**1625 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040259.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	58.631	6390	0.8	0.8
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S	58.865	6037	0.8	0.8
DC29UNK27	dia-C29 Unknown 27	59.380	3186	0.4	0.4
DC29UNK28	dia-C29 Unknown 28	59.638	2659	0.3	0.3
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R	60.177	4181	0.5	0.5
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R	60.317	3002	0.4	0.4
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S	61.254	11982	1.5	1.5
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S	61.418	11118	1.4	1.4
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R	62.683	7177	0.9	0.9
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R	62.824	7056	0.9	0.9
D294MabS	4α-Methyl-13α,17β-diaergostane 20S	63.597	8350	1.1	1.1
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R	64.463	7041	0.9	0.9
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R	64.557	12027	1.6	1.6
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S	64.674	6477	0.8	0.8
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R	65.096	10013	1.3	1.3
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S	65.377	11589	1.5	1.5
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S	65.705	7255	0.9	0.9
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S	65.846	11094	1.4	1.4
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R	66.033	19187	2.5	2.5
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R	66.314	33985	4.4	4.4
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R	67.438	25098	3.2	3.2
XS29aaaR	5α,14α,17α-stigmastane 20R	67.860	17991	2.3	2.3
414.4->231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S	66.947	13237	1.7	1.7
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	67.298	47013	6.1	6.1
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)	67.509	6321	0.8	0.8
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S	67.673	3174	0.4	0.4
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R	67.954	24821	3.2	3.2
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.141	21798	2.8	2.8
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	68.446	12371	1.6	1.6
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	68.844	9424	1.2	1.2
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.102	45736	5.9	5.9
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.289	91444	11.8	11.8
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane	69.734	5167	0.7	0.7
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane	70.273	7097	0.9	0.9
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	70.413	18392	2.4	2.4
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane	70.507	5955	0.8	0.8
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane	70.764	5018	0.6	0.6

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273046**
Top Depth:	**1625 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040259.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	69.219	3343	0.4	0.4
PP1	Tetracyclic polyprenoid	69.383	5027	0.6	0.6
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	69.523	7685	1.0	1.0
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S	69.804	6352	0.8	0.8
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R	70.554	4431	0.6	0.6
414.2->191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	62.941	43167	5.6	5.6
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane	66.361	7385	1.0	1.0
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane	67.509	26554	3.4	3.4
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane	67.907	9496	1.2	1.2
TRITERP17A	C30 plant terpane				
DH30	Diahopane	68.516	107227	13.8	13.8
TRITERP18	C30 unknown triterpane	69.008	8703	1.1	1.1
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	70.530	1007162	129.8	233.7
H30N30	30-Norhomohopane	70.788	22370	2.9	2.9
H30TS	18α,17β-Neohopane	71.163	47984	6.2	6.2
H30aa	17α, 21α-Hopane	71.420	42877	5.5	5.5
H30ba	17β, 21α-Hopane (Moretane)	71.725	137621	17.7	42.1
GamA	Gammacerane-A	74.395	12030	1.6	0.5
GamB	Gammacerane-B	74.559	6929	0.9	0.3
414.2->313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)	63.08	5767	0.743	0.7
B30T1	Bicadinane T1	63.71	1798	0.232	0.2
B30R	Bicadinane R	64.84	3345	0.431	0.4
274.3->203.2: Norpregnanes					
NORPREG1	Norpregnane-1	27.639	11277	1.5	1.5
NORPREG2	Norpregnane-2	28.928	14608	1.9	1.9
NORPREG3_4	Norpregnane-3+Norpregnane-4	29.748	32404	4.2	4.2
NORPREG5	Norpregnane-5	30.029	7593	1.0	1.0
NORPREG6	Norpregnane-6	30.310	35974	4.6	4.6
NORPREG7	Norpregnane-7	30.848	11396	1.5	1.5
NORPREG8_9	Norpregnane-8+Norpregnane-9	31.340	86890	11.2	11.2
NORPREG10	Norpregnane-10	31.621	25151	3.2	3.2
NORPREG11	Norpregnane-11	32.348	42657	5.5	5.5
NORPREG12	Norpregnane-12	33.074	8018	1.0	1.0

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Lab ID:**	**CP273046**
Top Depth:	**1625 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040259.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	45.091	86340	11.1	11.1
DesALUP	Des-A-Lupane	45.184	19518	2.5	2.5
DesATARAX	Des-A-Taraxastane	48.464	32039	4.1	4.1
DesEHOP	Des-E-Hopane	49.846	163868	21.1	21.1
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	70.788	28712	3.7	3.7
H31abS	C31 22S 2α-Methylhopane	73.762	89423	11.5	11.5
H31abR	C31 22R 2α-Methylhopane	74.137	77242	10.0	10.0
H313Mab	C31 3β-Methylhopane	74.559	15216	2.0	2.0

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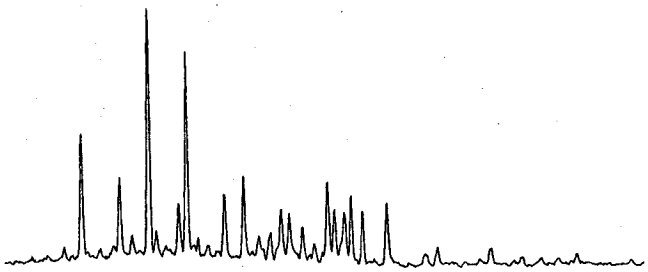
BASELINE DGSI
ANALYTICAL LABORATORIES

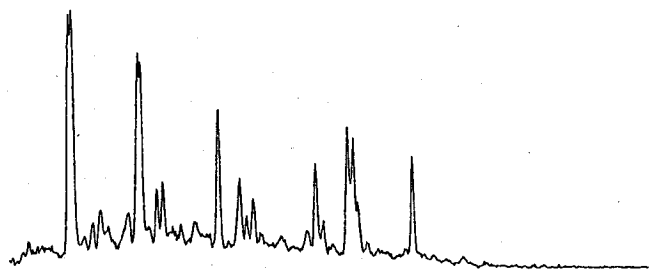
SATURATE GCMSMS

Company:	CONOCOPHILLIPS	Project #:	04-180-A	
Country:	UNITED STATES	Lab ID:	CP273047	
Basin:	NORTH SLOPE	Client ID:	US134517	
Lease:		Sample Type:	CORE	
Block:		Sampling Point:		
Field:		Formation:		
Well Name:	MEADE 1	Geologic Age:		
Latitude:		Top Depth:	2959	FT
Longitude:		Bottom Depth:		FT

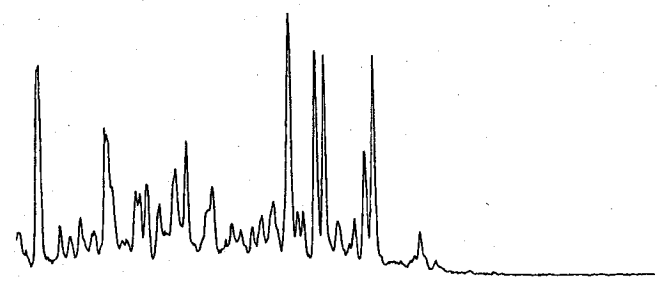
358->217: C26 Steranes MS040260.D



414->217: C30 Steranes



414->231: C30 Methylsteranes



RATIOS (on Area)[1]		Appl[2]	TEV[3]
Steranes			
%27 Steranes	16.2	D	
%28 Steranes	22.8	D	
%29 Steranes	61.0	D	
%27 Diasteranes	16.4	D	
%28 Diasteranes	21.3	D	
%29 Diasteranes	62.3	D	
C30 Sterane Index	0.04	D	
C30 iso/n-propyl sterane Index	0.05	A	
C27 αββ/(ααα+αββ)	0.62	M	
C28 αββ/(ααα+αββ)	0.67	M	
C29 αββ/(ααα+αββ)	0.59	M	
C30 αββ/(ααα+αββ)	0.63	M	
C27 S/(S+R)	0.48	M	
C28 S/(S+R)	0.44	M	
C29 S/(S+R)	0.53	M	
C30 S/(S+R)	0.40	M	
Diasteranes/Steranes	1.53		
24-Nordiacholestane ratio (NDR)	0.32	A	
24-Norcholestane ratio (NCR)	0.51	A	
21-Norcholestane ratio	0.11	D/M	
Dinosterane ratio		A	
4-Methyl sterane ratio	0.03	A	
Terpane Ratios			
Oleanane Index (%)		A	
DesA Oleanane Index (%)	13.6	A	
Gammacerane Index (%)	0.3	D	
Bicadinane Index (%)	0.8	A/D	
DiaHopane Index (%)	8.4	D	
TPP	0.08	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:**	**US134517**
Well Name:	**MEADE 1**	**Lab ID:**	**CP273047**
Top Depth:	**2959 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040260.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	49.050	861514	100.0	100.0
358.3->217.2: C26 Desmethylsteranes					
D26N24baS	13β,17α,24-nordiacholestane 20S	50.174	64254	7.5	7.5
D26N24baR	13β,17α,24-nordiacholestane 20R	51.252	42442	4.9	4.9
D26N27baS	13β,17α,27-nordiacholestane 20S	52.072	125369	14.6	14.6
D26N24abS	13α,17β,24-nordiacholestane 20S	52.282	15194	1.8	1.8
D26N24abR	13α,17β,24-nordiacholestane 20R	52.915	30890	3.6	3.6
D26N27baR	13β,17α,27-nordiacholestane 20R	53.149	99633	11.6	11.6
D26N27abS	13α,17β,27-nordiacholestane 20S	54.180	35184	4.1	4.1
D26N27abR	13α,17β,27-nordiacholestane 20R	54.742	44482	5.2	5.2
S26N24aaaS	5α,14α,17α,24-norcholestane 20S	55.796	30710	3.6	3.6
S26N24abbR	5α,14β,17β,24-norcholestane 20R	56.030	30874	3.6	3.6
S26N24abbS	5α,14β,17β,24-norcholestane 20S	56.382	20822	2.4	2.4
S26N24aaaR	5α,14α,17α,24-norcholestane 20R	57.108	46630	5.4	5.4
S26N21	21-norcholestane	57.295	30716	3.6	3.6
S26N27baaR	5β,14α,17α,27-norcholestane 20S	57.506	11457	1.3	1.3
S26N27aaaS	5α,14α,17α,27-norcholestane 20S	57.553	28491	3.3	3.3
S26N27abbR	5α,14β,17β,27-norcholestane 20R	57.764	33607	3.9	3.9
S26N27abbS	5α,14β,17β,27-norcholestane 20S	58.771	26955	3.1	3.1
S26N27aaaR	5α,14α,17α,27-norcholestane 20R	58.771	33832	3.9	3.9
372.3->217.2: C27 Desmethylsteranes					
D27baS	13β,17α-diacholestane 20S	54.180	1007381	116.9	83.3
D27baR	13β,17α-diacholestane 20R	55.515	648032	75.2	71.5
D27abS	13α,17β-diacholestane 20S	56.475	214250	24.9	14.7
D27abR	13α,17β-diacholestane 20R	57.155	302201	35.1	33.0
S27aaaS	5α,14α,17α-cholestane 20S	59.825	244285	28.4	18.3
S27abbR	5α,14β,17β-cholestane 20R	60.153	268088	31.1	33.3
S27abbS	5α,14β,17β-cholestane 20S	60.458	221490	25.7	28.6
S27aaaR	5α,14α,17α-cholestane 20R	61.231	240381	27.9	20.0
386.4->217.2: C28 Desmethylsteranes					
D28baSA	13β,17α-diaergostane 20S (24S)	57.319	536404	62.3	56.4
D28baSB	13β,17α-diaergostane 20S (24S)	57.530	562547	65.3	61.3
D28baRA	13β,17α-diaergostane 20R (24R)	58.795	346837	40.3	34.4
D28baRB	13β,17α-diaergostane 20R (24R)	58.912	430980	50.0	49.2
D28abS	13α,17β-diaergostane 20S	59.708	263117	30.5	30.5
D28abRA	13α,17β-diaergostane 20R	60.598	206021	23.9	23.9
D28abRB	13α,17β-diaergostane 20R	60.715	141863	16.5	16.5
C28UNK9	C28 Unknown 9	61.488	187548	21.8	21.8
S28aaaSA	5α,14α,17α-ergostane 20S	63.175	84894	9.9	9.7
S28aaaSB	5α,14α,17α-ergostane 20S	63.292	110923	12.9	10.5
S28baaR	5β,14α,17α-ergostane 20R				
S28abbR	5α,14β,17β-ergostane 20R	63.667	362858	42.1	56.4
S28abbS	5α,14β,17β-ergostane 20S	63.972	241300	28.0	37.7
S28N21	21-norstigmastane	64.417	58311	6.8	6.8
S28aaaR	5α,14α,17α-ergostane 20R	64.955	232580	27.0	26.2

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Lab ID:**	**CP273047**
Top Depth:	**2959 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040260.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	60.200	2627151	304.9	318.1
D29baR	13β,17α-diastigmastane 20R	61.723	1864062	216.4	269.5
D29abS	13α,17β-diastigmastane 20S	62.355	615765	71.5	71.5
D29abR	13α,17β-diastigmastane 20R	63.550	798067	92.6	92.6
C29UNK5	C29 Unknown 5	64.276	622046	72.2	72.2
S29aaaS	5α,14α,17α-stigmastane 20S	65.986	647589	75.2	82.1
S29abbR	5α,14β,17β-stigmastane 20R	66.572	652825	75.8	110.7
S29baaR	5β,14α,17α-stigmastane 20R				
S29abbS	5α,14β,17β-stigmastane 20S	66.783	638888	74.2	109.9
S29aaaR	5α,14α,17α-stigmastane 20R	67.977	641720	74.5	74.2
414.4–>217.2: C30 Desmethylsteranes					
D30nPbaSA	13β,17α-dia-24-n-propylcholestane 20S	62.425	58356	6.8	9.7
D30nPbaSB	13β,17α-dia-24-n-propylcholestane 20S	62.496	64840	7.5	9.2
D30nPbaR	13β,17α-dia-24-n-propylcholestane 20R	64.065	94084	10.9	18.4
D30nPabSA	13α,17β-dia-24-n-propylcholestane 20S	64.487	15924	1.8	1.8
D30nPabSB	13α,17β-dia-24-n-propylcholestane 20S	64.627	18149	2.1	2.1
D30nPabR	13α,17β-dia-24-n-propylcholestane 20R	65.939	38080	4.4	4.4
DC30UNK7	dia-C30 Unknown 7	66.431	22763	2.6	2.6
DC30UNK8	dia-C30 Unknown 8	66.595	8604	1.0	1.0
DC30UNK8A	dia-C30 Unknown 8A	66.736	13562	1.6	1.6
S30nPaaaS	5α,14α,17α-24-n-propylcholestane 20S	68.212	25458	3.0	4.0
C30UNK10	C30 Unknown 10	68.399	7735	0.9	0.9
S30iPaaaS	5α,14α,17α-24-iso-propylcholestane 20S	68.610	2991	0.3	0.3
S30nPabbR	5α,14β,17β-24-n-propylcholestane 20R	68.961	38486	4.5	8.8
S30nPabbS	5α,14β,17β-24-n-propylcholestane 20S	69.102	32584	3.8	8.2
S30nPbaaR	5β,14α,17α-24-n-propylcholestane 20R	69.195	11101	1.3	1.3
S30iPabbR	5α,14β,17β-24-iso-propylcholestane 20R	69.406	5211	0.6	0.6
S30nPaaaR	5α,14α,17α-24-n-propylcholestane 20R	70.483	29458	3.4	6.0
C30UNK14	C30 Unknown 14	70.624	1927	0.2	0.2
S30iPaaaR	5α,14α,17α-24-iso-propylcholestane 20R	70.764	1964	0.2	0.2
C30UNK16	C30 Unknown 16	71.678	4476	0.52	0.52
386.4–>231.2: C28 Methylsteranes					
D283MbaS	3β-Methyl-13β,17α-diacholestane 20S	55.702	44616	5.2	5.2
DC28UNK16	dia-C28 Unknown 16	56.475	14218	1.7	1.7
D283MbaR	3β-Methyl-13β,17α-diacholestane 20R	57.085	31856	3.7	3.7
DC28UNK3	dia-C28 Unknown 3	57.272	15120	1.8	1.8
DC28UNK17	dia-C28 Unknown 17	57.787	14714	1.7	1.7
D284MbaS	4α-Methyl-13β,17α-diacholestane 20S	58.279	65769	7.6	7.6
D284MbaR	4α-Methyl-13β,17α-diacholestane 20R	59.591	35192	4.1	4.1
S283MaaaS	3β-Methyl-5α,14α,17α-cholestane 20S	61.371	41123	4.8	4.8
S283MabbR	3β-Methyl-5α,14β,17β-cholestane 20R	61.746	38390	4.5	4.5
S283MabbS	3β-Methyl-5α,14β,17β-cholestane 20S	64.027	43767	5.1	5.1
S284MaaaS	4α-Methyl-5α,14α,17α-cholestane 20S	62.543	20706	2.4	2.4
S284MabbR	4α-Methyl-5α,14β,17β-cholestane 20R	62.707	27495	3.2	3.2
S283MaaaR	3β-Methyl-5α,14α,17α-cholestane 20R	62.777	30743	3.6	3.6
S284MabbS	4α-Methyl-5α,14β,17β-cholestane 20S	62.988	24977	2.9	2.9
S284MaaaR	4α-Methyl-5α,14α,17α-cholestane 20R	63.925	23262	2.7	2.7
XS28aaaR	5α,14α,17α-ergostane 20R	64.955	8435	1.0	1.0

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Lab ID:**	**CP273047**
Top Depth:	**2959 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040260.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	58.771	26368	3.1	3.1
D293MbaSB	3β-Methyl-13β,17α-diaergostane 20S	58.982	24647	2.9	2.9
DC29UNK27	dia-C29 Unknown 27	59.521	9434	1.1	1.1
DC29UNK28	dia-C29 Unknown 28	59.732	9008	1.0	1.0
D293MbaRA	3β-Methyl-13β,17α-diaergostane 20R	60.317	18903	2.2	2.2
D293MbaRB	3β-Methyl-13β,17α-diaergostane 20R	60.458	20428	2.4	2.4
D294MbaSA	4α-Methyl-13β,17α-diaergostane 20S	61.348	30322	3.5	3.5
D294MbaSB	4α-Methyl-13β,17α-diaergostane 20S	61.535	33166	3.9	3.9
D294MbaRA	4α-Methyl-13β,17α-diaergostane 20R	62.800	18172	2.1	2.1
D294MbaRB	4α-Methyl-13β,17α-diaergostane 20R	62.917	20427	2.4	2.4
D294MabS	4α-Methyl-13α,17β-diaergostane 20S	63.714	18971	2.2	2.2
D294MabRA	4α-Methyl-13α,17β-diaergostane 20R	64.581	17388	2.0	2.0
S293MaaaSA_4abRB	3β-Methyl-5α,14α,17α-ergostane 20S + 4a-methyl-13a,17b-diaergostane 20R	64.698	27952	3.2	3.2
S293MaaaSB	3β-Methyl-5α,14α,17α-ergostane 20S	64.815	18793	2.2	2.2
S293MabbR	3β-Methyl-5α,14β,17β-ergostane 20R	65.237	31462	3.7	3.7
S293MabbS	3β-Methyl-5α,14β,17β-ergostane 20S	65.494	36773	4.3	4.3
S294MaaaSA	4α-Methyl-5α,14α,17α-ergostane 20S	65.822	11478	1.3	1.3
S294MaaaSB	4α-Methyl-5α,14α,17α-ergostane 20S	65.963	34515	4.0	4.0
S294MabbR	4α-Methyl-5α,14β,17β-ergostane 20R	66.150	31624	3.7	3.7
S294MabbS_3MaaaR	4α-Methyl-5α,14β,17β-ergostane 20S + 3b-Methyl-5a,14a,17a-ergostane 20R	66.455	61539	7.1	7.1
S294MaaaR	4α-Methyl-5α,14α,17α-ergostane 20R	67.579	23601	2.7	2.7
XS29aaaR	5α,14α,17α-stigmastane 20R	67.977	22509	2.6	2.6
414.4–>231.2: C30 Methylsteranes					
S302MaaaS	2α-Methyl-5α,14α,17α-stigmastane 20S	67.064	35690	4.1	4.1
S303MaaaS	3β-Methyl-5α,14α,17α-stigmastane 20S + (coelution)	67.438	115348	13.4	13.4
S302MabbR	2α-Methyl-5α,14β,17β-stigmastane 20S + (coelution)	67.626	19586	2.3	2.3
S302MabbS	2α-Methyl-5α,14β,17β-stigmastane 20S	67.766	15447	1.8	1.8
S303MabbR	3β-Methyl-5α,14β,17β-stigmastane 20R	68.048	86979	10.1	10.1
BBDINO	ββ-dino (?)				
S303MabbS	3b-Methyl-5a,14b,17b-stigmastane 20S + (coelution)	68.258	76636	8.9	8.9
S304MaaaS	4α-Methyl-5α,14α,17α-stigmastane 20S	68.563	24333	2.8	2.8
S304MabbR	4α-Methyl-5α,14β,17β-stigmastane 20R	68.961	18459	2.1	2.1
S304MabbS_2MaaaR	4α-Methyl-5α,14β,17β-stigmastane 20S + 2α-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.195	48508	5.6	5.6
S303MaaaR	3β-Methyl-5α,14α,17α-stigmastane 20R + (coelution)	69.406	92272	10.7	10.7
DS4aSS20R	4α,23S,24S-trimethyl-20R-cholestane				
DS4aSR20R	4α,23S,24R-trimethyl-20R-cholestane				
S304MaaaR	4α-Methyl-5α,14α,17α-stigmastane 20R	70.507	16849	2.0	2.0
DS4aRR20R	4α,23R,24R-trimethyl-20R-cholestane				
DS4aRS20R	4α,23R,24S-trimethyl-20R-cholestane				

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Lab ID:**	**CP273047**
Top Depth:	**2959 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040260.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 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	69.336	3506	0.4	0.4
PP1	Tetracyclic polyprenoid	69.476	14238	1.7	1.7
PP2_S303PabbR	Tetracyclic polyprenoid+ 3β-propyl-5α,14β,17β-cholestane 20R	69.640	18812	2.2	2.2
S303PabbS	3β-Propyl-5α,14β,17β-cholestane 20S	69.921	6895	0.8	0.8
S303PaaaR	3β-Propyl-5α,14α,17α-cholestane 20R	70.671	6754	0.8	0.8
414.2–>191.2: Pentacyclic Triterpenoids					
REARNGHOP	Rearranged hopane	63.058	236476	27.4	27.4
OLEANOID13	5(4→3)abeo-3α(H), 5β-Oleanane				
TRITERP14	C30 unknown triterpane	66.478	21008	2.4	2.4
OLEANOID15A	Oleanoid				
OLEANOID15	Oleanoid				
OLEANOID16	Oleanoid				
C30UNKT2	5(4→3)abeo-3β(H)-Oleanane	67.649	104250	12.1	12.1
OLEANOID17	3β-methyl-24-nor-1(10→5)abeo-10β(H), 18α-oleanane	68.024	25078	2.9	2.9
TRITERP17A	C30 plant terpane				
DH30	Diahopane	68.633	429239	49.8	49.8
TRITERP18	C30 unknown triterpane	69.125	31778	3.7	3.7
OL18a	18α Oleanane				
OL18b	18β Oleanane				
H30ab	17α, 21β-Hopane	70.647	2613965	303.4	546.2
H30N30	30-Norhomohopane	70.905	60259	7.0	7.0
H30TS	18α,17β-Neohopane	71.256	115081	13.4	13.4
H30aa	17α, 21α-Hopane	71.537	80834	9.4	9.4
H30ba	17β, 21α-Hopane (Moretane)	71.842	245041	28.4	67.4
GamA	Gammacerane-A	74.488	23737	2.8	1.0
GamB	Gammacerane-B	74.652	11550	1.3	0.4
414.2–>313.3: Bicadinanes					
B30W	Bicadinane W (*cis,cis,trans*)				
B30T	Bicadinane T (*trans, trans,trans*)	63.20	23722	2.754	2.8
B30T1	Bicadinane T1	63.85	7120	0.826	0.8
B30R	Bicadinane R	64.93	4918	0.571	0.6
274.3–>203.2: Norpregnanes					
NORPREG1	Norpregnane-1				
NORPREG2	Norpregnane-2				
NORPREG3_4	Norpregnane-3+Norpregnane-4	29.724	12906	1.5	1.5
NORPREG5	Norpregnane-5	30.005	2916	0.3	0.3
NORPREG6	Norpregnane-6	30.286	14106	1.6	1.6
NORPREG7	Norpregnane-7	30.825	3996	0.5	0.5
NORPREG8_9	Norpregnane-8+Norpregnane-9	31.364	37806	4.4	4.4
NORPREG10	Norpregnane-10	31.621	10068	1.2	1.2
NORPREG11	Norpregnane-11	32.348	16255	1.9	1.9
NORPREG12	Norpregnane-12				

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Lab ID:**	**CP273047**
Top Depth:	**2959 FT**	**Fraction:**	**SATURATE**
Bottom Depth:	**FT**	**File Name:**	**MS040260.D**
Acquisition Parameters:	**SAT 0.2UL 1000/1 RES 70EV 500UA 250C AR=4E-7MBAR CE=25**		

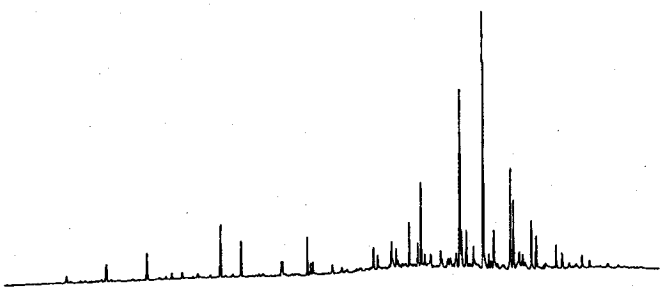
Peak Label	Compound	Retention Time	Area Count	Area ppm	Resp fact Area ppm
330.3->191.2: Tetracyclics					
DesAOL	Des-A-Oleanane	45.114	51130	5.9	5.9
DesALUP	Des-A-Lupane	45.231	10626	1.2	1.2
DesATARAX	Des-A-Taraxastane	48.511	29285	3.4	3.4
DesEHOP	Des-E-Hopane	49.893	323670	37.6	37.6
410.4->218.2: Monounsaturated 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	70.882	92395	10.7	10.7
H31abS	C31 22S 2α-Methylhopane	73.856	221372	25.7	25.7
H31abR	C31 22R 2α-Methylhopane	74.231	160332	18.6	18.6
H313Mab	C31 3β-Methylhopane	74.652	31740	3.7	3.7

BASELINE DGSI ANALYTICAL LABORATORIES

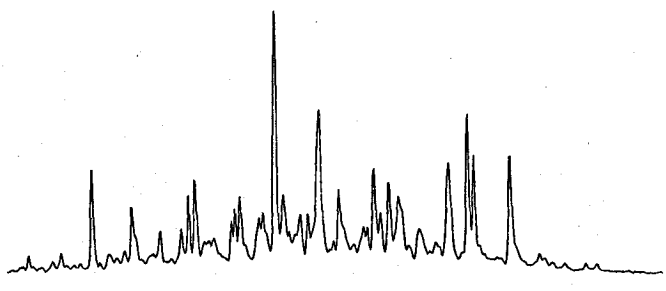
SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US134517
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273047
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	MEADE 1	**Geologic Age:**	
Latitude:		**Top Depth:**	2959 FT
Longitude:		**Bottom Depth:**	FT

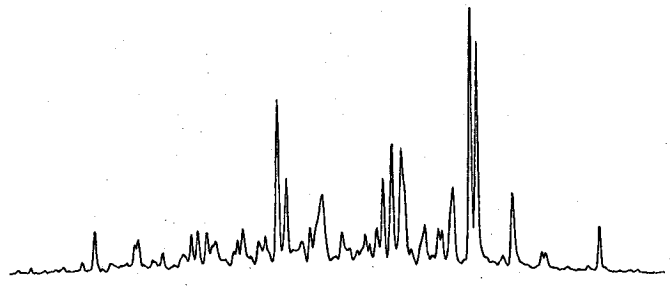
m/z 191: Tri- and Pentacyclics — M2040881.D



m/z 217: Steranes — M2040881.D



m/z 218: ββ Steranes — M2040881.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	23.2	D	
%C_{28} αββS (218)	30.5	D	
%C_{29} αββS (218)	46.3	D	
%C_{27} αααR (217)	21.4	D	
%C_{28} αααR (217)	23.2	D	
%C_{29} αααR (217)	55.4	D	
S/(S+R) (C_{29} ααα) (217)	0.51	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)	0.15		
C_{27}/C_{29} (αββS) (218)	0.50	D	
C_{28}/C_{29} (αββS) (218)	0.66	D	
Diaster/ααα Ster (C_{27}) (217)	1.86	M/D	1.00 (1.4%)
C30 Sterane Index (218)	2.98	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.02	D	
Norhopane/Hopane	0.67	D	
Bisnorhopane/Hopane	0.06		
Diahopane/Hopane	0.15	M/D	
Moretane/Hopane	0.16	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.34	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.21	M	
H32 S/(R+S) Homohopanes	0.59	M	0.60 (0.6%)
H35/H34 Homohopanes	0.42	D	
C24 Tetracyclic/Hopane	0.14	D	
C24 Tetracyclic/C26 Tricyclics	1.22	D	
C23/C24 Tricyclic terpanes	1.46	D	
C19/C23 Tricyclic terpanes	0.23	D	
C26/C25 Tricyclic terpanes	0.96	D	
(C28+C29 Tricyclics)/Ts	2.08	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.22	D	
Tricyclic terpanes/Hopanes	0.34	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	1.54	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

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M2040881.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*	62.429	5569	1266	100.0	100.0
125	H30_125	C30 17α(H)-hopane (125)	76.599	4492	716	80.7	56.6
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	44.719	1704	235	30.6	18.6
191	TR20	C20 tricyclic terpane	47.752	3173	587	57.0	46.4
191	TR21	C21 tricyclic terpane	50.828	4044	905	72.6	71.5
191	TR22	C22 tricyclic terpane	53.535	1035	209	18.6	16.5
191	TR23	C23 tricyclic terpane	56.536	7312	1797	131.3	141.9
191	TR24	C24 tricyclic terpane	58.096	4993	1233	89.7	97.4
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	61.172	2483	503	44.6	39.7
191	TR25B	C25 tricyclic terpane (b)	61.259	2011	511	36.1	40.4
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	63.144	5233	1317	94.0	104.0
191	TR26A	C26 tricyclic terpane (a)	63.404	2071	437	37.2	34.5
191	TR26B	C26 tricyclic terpane (b)	63.577	2232	471	40.1	37.2
191	TR28A	C28 tricyclic terpane (a)	68.236	3418	756	61.4	59.7
191	TR28B	C28 tricyclic terpane (b)	68.561	1972	490	35.4	38.7
191	TR29A	C29 tricyclic terpane (a)	69.601	4268	925	76.6	73.1
191	TR29B	C29 tricyclic terpane (b)	69.991	2808	659	50.4	52.1
191	TS	Ts 18α(H)-trisnorhopane	70.988	5998	1515	107.7	119.7
191	TM	Tm 17α(H)-trisnorhopane	71.854	11532	2902	207.1	229.2
191	TR30A	C30 tricyclic terpane (a)	72.158	2190	447	39.3	35.3
191	TR30B	C30 tricyclic terpane (b)	72.591	2263	446	40.6	35.2
191	H28	C28 17α18α21β(H)-bisnorhopane	73.913	2412	310	43.3	24.5
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.823	24812	6137	445.5	484.8
191	C29TS	C29 Ts 18α(H)-norneohopane	74.953	5090	1247	91.4	98.5
191	DH30	C30 17α(H)-diahopane	75.299	5465	1294	98.1	102.2
191	M29	C29 normoretane	75.863	3279	748	58.9	59.1
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.599	37156	8881	667.2	701.5
191	M30	C30 moretane	77.423	5799	1327	104.1	104.8
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.680	15010	3442	269.5	271.9
191	H31R	C31 22R 17α(H) hopane	78.918	9794	2348	175.9	185.5
191	GAM	gammacerane	79.243	859	212	15.4	16.7

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M2040881.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.283	7123	1664	127.9	131.4
191	H32R	C32 22R 17α(H) hopane	80.630	4905	1129	88.1	89.2
191	H33S	C33 22S 17α(H) hopane	82.146	3762	809	67.6	63.9
191	H33R	C33 22R 17α(H) hopane	82.623	2202	517	39.5	40.8
191	H34S	C34 22S 17α(H) hopane	84.075	1845	424	33.1	33.5
191	H34R	C34 22R 17α(H) hopane	84.660	1148	248	20.6	19.6
191	H35S	C35 22S 17α(H) hopane	86.068	762	144	13.7	11.4
191	H35R	C35 22R 17α(H) hopane	86.826	508	96	9.1	7.6
217	S21	C21 sterane	53.947	4601	830	82.6	65.6
217	DIA27S	C27 βα 20S diasterane	65.831	4113	899	73.9	71.0
217	C27R	C27 αα 20R sterane	70.424	2209	430	39.7	34.0
217	C28R	C28 αα 20R sterane	72.829	2397	279	43.0	22.0
217	C29S	C29 αα 20S sterane	73.458	5897	884	105.9	69.8
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.869	6451	1328	115.8	104.9
217	C29BBS	C29 ββ 20S sterane	73.999	4292	958	77.1	75.7
217	C29R	C29 αα 20R sterane	74.779	5717	991	102.7	78.3
218	C27ABBR	C27 ββ 20R sterane	69.731	6126	1213	110.0	95.8
218	C27ABBS	C27 ββ 20S sterane	69.926	3691	646	66.3	51.0
218	C28ABBR	C28 ββ 20R sterane	72.006	3170	638	56.9	50.4
218	C28ABBS	C28 ββ 20S sterane	72.201	4849	885	87.1	69.9
218	C29ABBR	C29 ββ 20R sterane	73.869	8685	1861	156.0	147.0
218	C29ABBS	C29 ββ 20S sterane	73.999	7367	1617	132.3	127.7
218	C30ABBR	C30 ββ 20R sterane	75.386	501	114	9.0	9.0
218	C30ABBS	C30 ββ 20S sterane	75.473	488	105	8.8	8.3
259	D27S	C27 βα 20S diasterane	65.831	2677	604	48.1	47.7
259	D27R	C27 βα 20R diasterane	66.676	1856	373	33.3	29.5
259	D28SA	C28 βα 20S diasterane a	67.889	1847	414	33.2	32.7
259	D28SB	C28 βα 20S diasterane b	68.041	2331	433	41.9	34.2
259	D28RA	C28 βα 20R diasterane a	68.799	1539	340	27.6	26.9
259	D28RB	C28 βα 20R diasterane b	68.886	1197	305	21.5	24.1
259	D29S	C29 βα 20S diasterane	69.753	8360	1437	150.1	113.5
259	D29R	C29 βα 20R diasterane	70.684	6638	918	119.2	72.5
259	C30TP1	C30 tetracyclic polyprenoid	75.689	337	78	6.1	6.2
259	C30TP2	C30 tetracyclic polyprenoid	75.798	296	80	5.3	6.3

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M2040881.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
135	1MAM	1-Methyladamantane	13.550	105	41	1.9	3.2
135	2MAM	2-Methyladamantane	15.409	75	28	1.3	2.2
135	1EAM	1-Ethyladamantane	17.290	41	17	0.7	1.3
135	2EAM	2-Ethyladamantane	18.125	107	33	1.9	2.6
136	AM	Adamantane	13.049	20	9	0.4	0.7
149	13DMAM	1,3-Dimethyladamantane	13.947	105	35	1.9	2.8
149	C14DMAM	1,4-Dimethyladamantane, cis	15.702	70	31	1.3	2.4
149	T14DMAM	1,4-Dimethyladamantane, trans	15.848	78	27	1.4	2.1
149	12DMAM	1,2-Dimethyladamantane	16.600	88	37	1.6	2.9
149	1E3MAM	1-Ethyl-3-methyladamantane	17.624	61	22	1.1	1.7
163	135TMAM	1,3,5-Trimethyladamantane	14.260	54	17	1.0	1.3
163	136TMAM	1,3,6-Trimethyladamantane	16.036	65	22	1.2	1.7
163	C134TMAM	1,3,4-Trimethyladamantane, cis	16.788	65	25	1.2	2.0
163	T134TMAM	1,3,4-Trimethyladamantane, trans	16.934	78	26	1.4	2.1
163	1E35DMAM	1-Ethyl-3,5-dimethyladamantane	17.854	58	17	1.0	1.3
177	1357TMAM	1,3,5,7-Tetramethyladamantane	14.490	18	6	0.3	0.5
177	1257TMAM	1,2,5,7-Tetramethyladamantane	17.018	54	17	1.0	1.3
187	4MDI	4-Methyldiamantane	25.730	114	28	2.0	2.2
187	1MDI	1-Methyldiamantane	27.234	79	20	1.4	1.6
187	3MDI	3-Methyldiamantane	28.320	81	17	1.5	1.3
188	DI	Diamantane	25.291	75	19	1.3	1.5
201	49DMDI	4,9-Dimethyldiamantane	26.169	36	8	0.6	0.6
201	1424DMDI	1,4 and 2,4-dimethyldiamantane	27.338	59	12	1.1	0.9
201	48DMDI	4,8-Dimethyldiamantane	27.547	70	14	1.3	1.1
201	34DMDI	3,4-Dimethyldiamantane	28.801	86	16	1.5	1.3
215	TMDI	Trimethyldiamantane	27.589	51	10	0.9	0.8

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M2040881.D**

Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	23.2	20.5
%C_{28} αββS (218)	30.5	28.1
%C_{29} αββS (218)	46.3	51.4
C_{27}/C_{29} (αββS) (218)	0.50	0.40
C_{28}/C_{29} (αββS) (218)	0.66	0.55
C_{29}/C_{27} (αββS) (218)	2.00	2.50
%C_{27} αααR (217)	21.4	25.3
%C_{28} αααR (217)	23.2	16.4
%C_{29} αααR (217)	55.4	58.3
S/R (C_{29} ααα) (217)	1.03	0.89
S/(S+R) (C_{29} ααα) (217)	0.51	0.47
ββ/(αα+ββ) (C_{29}) (217)	0.48	0.55
αββS/αααR (C_{29}) (217)	0.75	
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.15	0.14
Diaster/ααα Ster (C_{27}) (217)	1.86	2.09
Terpenoids		
C19/C23 Tricyclic terpanes	0.23	0.13
C23/C24 Tricyclic terpanes	1.46	1.46
C26/C25 Tricyclic terpanes	0.96	0.90
C24 Tetracyclic/C26 Tricyclics	1.22	1.45
C24 Tetracyclic/Hopane	0.14	0.15
Ts/Tm trisnorhopanes	0.52	0.52
Ts/(Ts+Tm) trisnorhopanes	0.34	0.34
C29Ts/C29 Hopane	0.21	0.20
Bisnorhopane/Hopane	0.06	0.03
Norhopane/Hopane	0.67	0.69
Diahopane/Hopane	0.15	0.15
Oleanane/Hopane		
Gammacerane/Hopane	0.02	0.02
Moretane/(Moretane+Hopane)	0.14	0.13
H32 S/(S+R) Homohopanes	0.59	0.60
H35/H34 Homohopanes	0.42	0.36
[Steranes]/[Hopanes]	0.22	0.17
[Tricyclic terpanes]/[Hopanes]	0.34	0.32
[Tricyclic terpanes]/[Steranes]	1.54	1.84
DIAMONDOID Ratios		
Methyl Adamantane Index	0.58	0.59
Methyl Diamantane Index	0.42	0.43

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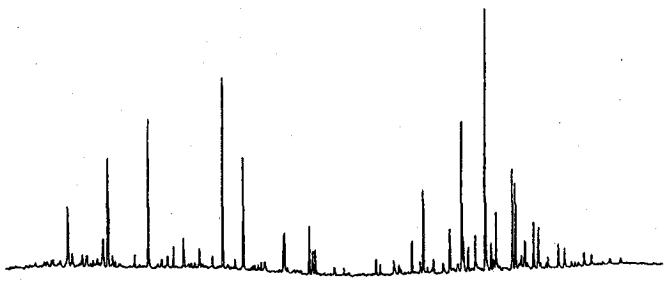
BASELINE DGSI
ANALYTICAL LABORATORIES

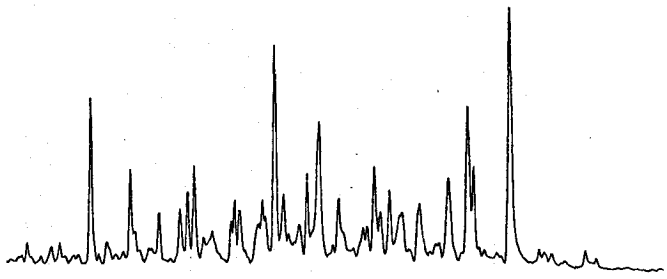
SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US134516
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273046
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	OUMALIK 1	**Geologic Age:**	
Latitude:	69.8416	**Top Depth:**	1625 FT
Longitude:	-155.971	**Bottom Depth:**	FT

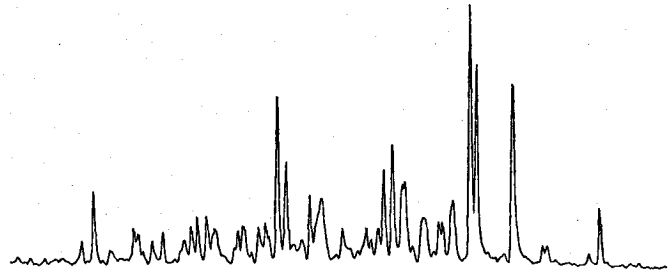
m/z 191: Tri- and Pentacyclics — M2040880.D



m/z 217: Steranes — M2040880.D



m/z 218: ββ Steranes — M2040880.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	24.9	D	
%C_{28} αββS (218)	29.2	D	
%C_{29} αββS (218)	45.9	D	
%C_{27} αααR (217)	16.5	D	
%C_{28} αααR (217)	21.5	D	
%C_{29} αααR (217)	62.0	D	
S/(S+R) (C_{29} ααα) (217)	0.30	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)	0.51		
C_{27}/C_{29} (αββS) (218)	0.54	D	
C_{28}/C_{29} (αββS) (218)	0.64	D	
Diaster/ααα Ster (C_{27}) (217)	1.73	M/D	1.00 (1.4%)
C30 Sterane Index (218)	3.68	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.02	D	
Norhopane/Hopane	0.59	D	
Bisnorhopane/Hopane	0.22		
Diahopane/Hopane	0.09	M/D	
Moretane/Hopane	0.23	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.29	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.21	M	
H32 S/(R+S) Homohopanes	0.54	M	0.60 (0.6%)
H35/H34 Homohopanes	0.52	D	
C24 Tetracyclic/Hopane	0.18	D	
C24 Tetracyclic/C26 Tricyclics	0.97	D	
C23/C24 Tricyclic terpanes	1.77	D	
C19/C23 Tricyclic terpanes	0.50	D	
C26/C25 Tricyclic terpanes	0.63	D	
(C28+C29 Tricyclics)/Ts	1.67	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.28	D	
Tricyclic terpanes/Hopanes	0.88	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	3.08	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 4 3

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M2040880.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*	62.409	5720	1417	100.0	100.0
125	H30_125	C30 17α(H)-hopane (125)	76.579	1723	303	30.1	21.4
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	44.719	6686	1033	116.9	72.9
191	TR20	C20 tricyclic terpane	47.773	8803	1901	153.9	134.2
191	TR21	C21 tricyclic terpane	50.828	10469	2599	183.0	183.4
191	TR22	C22 tricyclic terpane	53.535	2215	520	38.7	36.7
191	TR23	C23 tricyclic terpane	56.515	13438	3355	234.9	236.8
191	TR24	C24 tricyclic terpane	58.075	7600	1956	132.9	138.0
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	61.152	2912	649	50.9	45.8
191	TR25B	C25 tricyclic terpane (b)	61.238	2414	697	42.2	49.2
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	63.124	3276	854	57.3	60.3
191	TR26A	C26 tricyclic terpane (a)	63.384	1732	415	30.3	29.3
191	TR26B	C26 tricyclic terpane (b)	63.557	1630	439	28.5	31.0
191	TR28A	C28 tricyclic terpane (a)	68.194	1298	287	22.7	20.3
191	TR28B	C28 tricyclic terpane (b)	68.540	732	194	12.8	13.7
191	TR29A	C29 tricyclic terpane (a)	69.559	1153	248	20.2	17.5
191	TR29B	C29 tricyclic terpane (b)	69.949	793	173	13.9	12.2
191	TS	Ts 18α(H)-trisnorhopane	70.945	2380	588	41.6	41.5
191	TM	Tm 17α(H)-trisnorhopane	71.834	5928	1486	103.6	104.9
191	TR30A	C30 tricyclic terpane (a)	72.137	472	121	8.3	8.5
191	TR30B	C30 tricyclic terpane (b)	72.614	1218	249	21.3	17.6
191	H28	C28 17α18α21β(H)-bisnorhopane	73.849	3977	771	69.5	54.4
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.802	10951	2651	191.5	187.1
191	C29TS	C29 Ts 18α(H)-norneohopane	74.932	2347	533	41.0	37.6
191	DH30	C30 17α(H)-diahopane	75.279	1669	426	29.2	30.1
191	M29	C29 normoretane	75.821	2665	615	46.6	43.4
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.579	18432	4619	322.2	326.0
191	M30	C30 moretane	77.381	4326	1015	75.6	71.6
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.659	7768	1766	135.8	124.6
191	H31R	C31 22R 17α(H) hopane	78.897	6274	1516	109.7	107.0
191	GAM	gammacerane	79.222	415	100	7.3	7.1

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M2040880.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.262	3489	821	61.0	57.9
191	H32R	C32 22R 17α(H) hopane	80.609	3005	723	52.5	51.0
191	H33S	C33 22S 17α(H) hopane	82.126	1867	416	32.6	29.4
191	H33R	C33 22R 17α(H) hopane	82.602	1489	345	26.0	24.3
191	H34S	C34 22S 17α(H) hopane	84.054	989	233	17.3	16.4
191	H34R	C34 22R 17α(H) hopane	84.639	828	179	14.5	12.6
191	H35S	C35 22S 17α(H) hopane	86.047	484	92	8.5	6.5
191	H35R	C35 22R 17α(H) hopane	86.828	458	99	8.0	7.0
217	S21	C21 sterane	53.947	10563	2038	184.7	143.8
217	DIA27S	C27 βα 20S diasterane	65.789	2765	657	48.3	46.4
217	C27R	C27 αα 20R sterane	70.404	1598	362	27.9	25.5
217	C28R	C28 αα 20R sterane	72.809	2084	248	36.4	17.5
217	C29S	C29 αα 20S sterane	73.415	2538	351	44.4	24.8
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.827	3713	638	64.9	45.0
217	C29BBS	C29 ββ 20S sterane	73.979	1897	399	33.2	28.2
217	C29R	C29 αα 20R sterane	74.737	6011	1030	105.1	72.7
218	C27ABBR	C27 ββ 20R sterane	69.689	2474	501	43.3	35.4
218	C27ABBS	C27 ββ 20S sterane	69.905	1531	303	26.8	21.4
218	C28ABBR	C28 ββ 20R sterane	71.985	1415	280	24.7	19.8
218	C28ABBS	C28 ββ 20S sterane	72.159	1797	355	31.4	25.1
218	C29ABBR	C29 ββ 20R sterane	73.827	3701	780	64.7	55.0
218	C29ABBS	C29 ββ 20S sterane	73.979	2822	599	49.3	42.3
218	C30ABBR	C30 ββ 20R sterane	75.366	204	51	3.6	3.6
218	C30ABBS	C30 ββ 20S sterane	75.452	235	50	4.1	3.5
259	D27S	C27 βα 20S diasterane	65.810	1784	408	31.2	28.8
259	D27R	C27 βα 20R diasterane	66.634	1086	241	19.0	17.0
259	D28SA	C28 βα 20S diasterane a	67.869	822	189	14.4	13.3
259	D28SB	C28 βα 20S diasterane b	67.999	933	196	16.3	13.8
259	D28RA	C28 βα 20R diasterane a	68.779	575	133	10.1	9.4
259	D28RB	C28 βα 20R diasterane b	68.865	428	122	7.5	8.6
259	D29S	C29 βα 20S diasterane	69.710	2670	498	46.7	35.1
259	D29R	C29 βα 20R diasterane	70.664	2331	336	40.8	23.7
259	C30TP1	C30 tetracyclic polyprenoid	75.669	159	43	2.8	3.0
259	C30TP2	C30 tetracyclic polyprenoid	75.777	198	44	3.5	3.1

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M2040880.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
135	1MAM	1-Methyladamantane	13.551	3729	1541	65.2	108.8
135	2MAM	2-Methyladamantane	15.410	3891	1560	68.0	110.1
135	1EAM	1-Ethyladamantane	17.291	2714	1051	47.4	74.2
135	2EAM	2-Ethyladamantane	18.126	8479	2768	148.2	195.3
136	AM	Adamantane	13.050	692	274	12.1	19.3
149	13DMAM	1,3-Dimethyladamantane	13.948	3581	1335	62.6	94.2
149	C14DMAM	1,4-Dimethyladamantane, cis	15.703	4277	1629	74.8	115.0
149	T14DMAM	1,4-Dimethyladamantane, trans	15.849	4241	1677	74.1	118.3
149	12DMAM	1,2-Dimethyladamantane	16.601	5532	2199	96.7	155.2
149	1E3MAM	1-Ethyl-3-methyladamantane	17.625	3370	1219	58.9	86.0
163	135TMAM	1,3,5-Trimethyladamantane	14.261	1476	593	25.8	41.8
163	136TMAM	1,3,6-Trimethyladamantane	16.037	2721	1098	47.6	77.5
163	C134TMAM	1,3,4-Trimethyladamantane, cis	16.789	3316	1345	58.0	94.9
163	T134TMAM	1,3,4-Trimethyladamantane, trans	16.935	3509	1248	61.3	88.1
163	1E35DMAM	1-Ethyl-3,5-dimethyladamantane	17.855	2489	806	43.5	56.9
177	1357TMAM	1,3,5,7-Tetramethyladamantane	14.491	246	106	4.3	7.5
177	1257TMAM	1,2,5,7-Tetramethyladamantane	17.019	2167	786	37.9	55.5
187	4MDI	4-Methyldiamantane	25.752	7921	1973	138.5	139.2
187	1MDI	1-Methyldiamantane	27.235	6793	1429	118.8	100.8
187	3MDI	3-Methyldiamantane	28.321	5728	1228	100.1	86.7
188	DI	Diamantane	25.292	6916	1821	120.9	128.5
201	49DMDI	4,9-Dimethyldiamantane	26.170	2110	503	36.9	35.5
201	1424DMDI	1,4 and 2,4-dimethyldiamantane	27.340	3204	727	56.0	51.3
201	48DMDI	4,8-Dimethyldiamantane	27.569	3646	825	63.7	58.2
201	34DMDI	3,4-Dimethyldiamantane	28.823	5228	1026	91.4	72.4
215	TMDI	Trimethyldiamantane	27.611	2130	472	37.2	33.3

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M2040880.D**

Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	24.9	24.1
%C_{28} αββS (218)	29.2	28.2
%C_{29} αββS (218)	45.9	47.7
C_{27}/C_{29} (αββS) (218)	0.54	0.51
C_{28}/C_{29} (αββS) (218)	0.64	0.59
C_{29}/C_{27} (αββS) (218)	1.84	1.98
%C_{27} αααR (217)	16.5	22.1
%C_{28} αααR (217)	21.5	15.1
%C_{29} αααR (217)	62.0	62.8
S/R (C_{29} ααα) (217)	0.42	0.34
S/(S+R) (C_{29} ααα) (217)	0.30	0.25
ββ/(αα+ββ) (C_{29}) (217)	0.40	0.43
αββS/αααR (C_{29}) (217)	0.32	
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.51	0.55
Diaster/ααα Ster (C_{27}) (217)	1.73	1.81
Terpenoids		
C19/C23 Tricyclic terpanes	0.50	0.31
C23/C24 Tricyclic terpanes	1.77	1.72
C26/C25 Tricyclic terpanes	0.63	0.63
C24 Tetracyclic/C26 Tricyclics	0.97	1.00
C24 Tetracyclic/Hopane	0.18	0.18
Ts/Tm trisnorhopanes	0.40	0.40
Ts/(Ts+Tm) trisnorhopanes	0.29	0.28
C29Ts/C29 Hopane	0.21	0.20
Bisnorhopane/Hopane	0.22	0.17
Norhopane/Hopane	0.59	0.57
Diahopane/Hopane	0.09	0.09
Oleanane/Hopane		
Gammacerane/Hopane	0.02	0.02
Moretane/(Moretane+Hopane)	0.19	0.18
H32 S/(S+R) Homohopanes	0.54	0.53
H35/H34 Homohopanes	0.52	0.46
[Steranes]/[Hopanes]	0.28	0.21
[Tricyclic terpanes]/[Hopanes]	0.88	0.86
[Tricyclic terpanes]/[Steranes]	3.08	4.03
DIAMONDOID Ratios		
Methyl Adamantane Index	0.49	0.50
Methyl Diamantane Index	0.39	0.43

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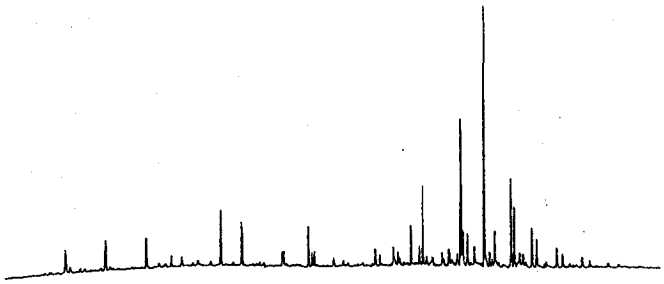
BASELINE DGSI
ANALYTICAL LABORATORIES

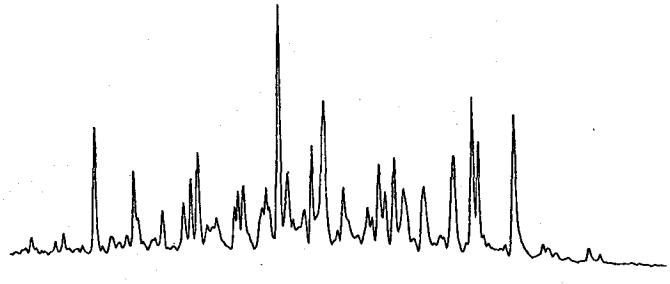
SATURATE GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US134514
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273044
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	OUMALIK 1	**Geologic Age:**	
Latitude:	69.8416	**Top Depth:**	989 FT
Longitude:	-155.971	**Bottom Depth:**	FT

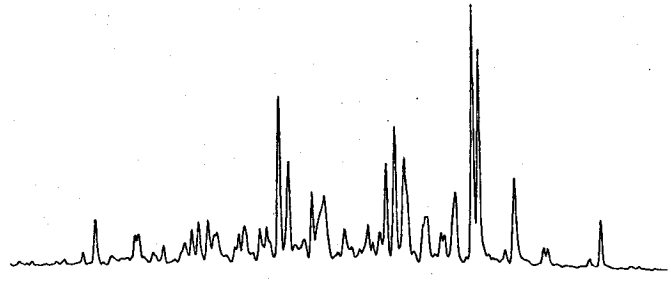
m/z 191: Tri- and Pentacyclics — M2040879.D



m/z 217: Steranes — M2040879.D



m/z 218: ββ Steranes — M2040879.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	24.4	D	
%C_{28} αββS (218)	31.0	D	
%C_{29} αββS (218)	44.6	D	
%C_{27} αααR (217)	25.6	D	
%C_{28} αααR (217)	31.9	D	
%C_{29} αααR (217)	42.4	D	
S/(S+R) (C_{29} ααα) (217)	0.47	M	0.55 (0.8%)
ββS/(ββS+ααR) (C29) (217)	0.39	M	0.70 (0.9%)
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.13		
C_{27}/C_{29} (αββS) (218)	0.55	D	
C_{28}/C_{29} (αββS) (218)	0.69	D	
Diaster/ααα Ster (C_{27}) (217)	1.10	M/D	1.00 (1.4%)
C30 Sterane Index (218)	3.07	D	
Terpanes (*m/z* 191)			
Oleanane/Hopane		D/A	
Gammacerane/Hopane	0.02	D	
Norhopane/Hopane	0.61	D	
Bisnorhopane/Hopane	0.10		
Diahopane/Hopane	0.13	M/D	
Moretane/Hopane	0.14	M	0.05 (0.7%)
25-*nor*-hopane/hopane		B	
Ts/(Ts+Tm) trisnorhopanes	0.35	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.23	M	
H32 S/(R+S) Homohopanes	0.59	M	0.60 (0.6%)
H35/H34 Homohopanes	0.48	D	
C24 Tetracyclic/Hopane	0.16	D	
C24 Tetracyclic/C26 Tricyclics	1.37	D	
C23/C24 Tricyclic terpanes	1.35	D	
C19/C23 Tricyclic terpanes	0.63	D	
C26/C25 Tricyclic terpanes	0.94	D	
(C28+C29 Tricyclics)/Ts	1.57	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.29	D	
Tricyclic terpanes/Hopanes	0.41	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	1.41	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

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M2040879.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*	62.430	5809	1278	100.0	100.0
125	H30_125	C30 17α(H)-hopane (125)	76.600	1986	494	34.2	38.7
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	44.720	7127	1049	122.7	82.1
191	TR20	C20 tricyclic terpane	47.774	8057	1408	138.7	110.2
191	TR21	C21 tricyclic terpane	50.850	6475	1409	111.5	110.3
191	TR22	C22 tricyclic terpane	53.558	2191	446	37.7	34.9
191	TR23	C23 tricyclic terpane	56.536	11383	2563	196.0	200.5
191	TR24	C24 tricyclic terpane	58.096	8424	2016	145.0	157.7
191	C24DEOL	C24 des-A-oleanane					
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	61.195	3305	677	56.9	53.0
191	TR25B	C25 tricyclic terpane (b)	61.260	2708	729	46.6	57.0
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	63.145	7764	1922	133.7	150.4
191	TR26A	C26 tricyclic terpane (a)	63.405	2844	661	49.0	51.7
191	TR26B	C26 tricyclic terpane (b)	63.578	2823	715	48.6	55.9
191	TR28A	C28 tricyclic terpane (a)	68.215	3773	809	65.0	63.3
191	TR28B	C28 tricyclic terpane (b)	68.561	2028	540	34.9	42.3
191	TR29A	C29 tricyclic terpane (a)	69.601	3843	847	66.2	66.3
191	TR29B	C29 tricyclic terpane (b)	69.970	2822	637	48.6	49.8
191	TS	Ts 18α(H)-trisnorhopane	70.966	7950	1882	136.9	147.3
191	TM	Tm 17α(H)-trisnorhopane	71.855	14931	3737	257.0	292.4
191	TR30A	C30 tricyclic terpane (a)	72.158	1866	448	32.1	35.1
191	TR30B	C30 tricyclic terpane (b)	72.591	2140	400	36.8	31.3
191	H28	C28 17α18α21β(H)-bisnorhopane	73.870	4818	777	82.9	60.8
191	NOR25H	C29 Nor-25-hopane					
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.823	28817	6828	496.1	534.3
191	C29TS	C29 Ts 18α(H)-norneohopane	74.953	6768	1639	116.5	128.2
191	DH30	C30 17α(H)-diahopane	75.300	6152	1497	105.9	117.1
191	M29	C29 normoretane	75.842	3533	889	60.8	69.6
191	OL	oleanane					
191	H30	C30 17α(H)-hopane	76.600	47423	12173	816.4	952.5
191	M30	C30 moretane	77.402	6688	1678	115.1	131.3
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.658	17187	4125	295.9	322.8
191	H31R	C31 22R 17α(H) hopane	78.918	11887	2804	204.6	219.4
191	GAM	gammacerane	79.222	1169	282	20.1	22.1

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M2040879.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.283	8352	1853	143.8	145.0
191	H32R	C32 22R 17α(H) hopane	80.630	5886	1332	101.3	104.2
191	H33S	C33 22S 17α(H) hopane	82.147	4548	933	78.3	73.0
191	H33R	C33 22R 17α(H) hopane	82.602	2902	632	50.0	49.5
191	H34S	C34 22S 17α(H) hopane	84.075	2321	479	40.0	37.5
191	H34R	C34 22R 17α(H) hopane	84.638	1474	303	25.4	23.7
191	H35S	C35 22S 17α(H) hopane	86.047	1026	193	17.7	15.1
191	H35R	C35 22R 17α(H) hopane	86.827	794	144	13.7	11.3
217	S21	C21 sterane	53.948	6773	1195	116.6	93.5
217	DIA27S	C27 βα 20S diasterane	65.810	6102	1360	105.0	106.4
217	C27R	C27 αα 20R sterane	70.425	5548	1204	95.5	94.2
217	C28R	C28 αα 20R sterane	72.830	6916	785	119.1	61.4
217	C29S	C29 αα 20S sterane	73.458	8060	1126	138.8	88.1
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.848	9278	1764	159.7	138.0
217	C29BBS	C29 ββ 20S sterane	74.000	5890	1284	101.4	100.5
217	C29R	C29 αα 20R sterane	74.758	9190	1578	158.2	123.5
218	C27ABBR	C27 ββ 20R sterane	69.731	7768	1563	133.7	122.3
218	C27ABBS	C27 ββ 20S sterane	69.926	4945	961	85.1	75.2
218	C28ABBR	C28 ββ 20R sterane	72.006	4844	950	83.4	74.3
218	C28ABBS	C28 ββ 20S sterane	72.180	6282	1287	108.1	100.7
218	C29ABBR	C29 ββ 20R sterane	73.848	10829	2419	186.4	189.3
218	C29ABBS	C29 ββ 20S sterane	74.000	9050	2003	155.8	156.7
218	C30ABBR	C30 ββ 20R sterane	75.387	716	163	12.3	12.8
218	C30ABBS	C30 ββ 20S sterane	75.473	642	156	11.1	12.2
259	D27S	C27 βα 20S diasterane	65.831	3706	890	63.8	69.6
259	D27R	C27 βα 20R diasterane	66.676	2595	551	44.7	43.1
259	D28SA	C28 βα 20S diasterane a	67.890	2348	535	40.4	41.9
259	D28SB	C28 βα 20S diasterane b	68.020	2841	564	48.9	44.1
259	D28RA	C28 βα 20R diasterane a	68.800	1893	429	32.6	33.6
259	D28RB	C28 βα 20R diasterane b	68.886	1416	381	24.4	29.8
259	D29S	C29 βα 20S diasterane	69.731	8477	1540	145.9	120.5
259	D29R	C29 βα 20R diasterane	70.685	6730	977	115.9	76.4
259	C30TP1	C30 tetracyclic polyprenoid	75.690	486	126	8.4	9.9
259	C30TP2	C30 tetracyclic polyprenoid	75.777	485	119	8.3	9.3

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M2040879.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
135	1MAM	1-Methyladamantane	13.547	1230	502	21.2	39.3
135	2MAM	2-Methyladamantane	15.406	990	389	17.0	30.4
135	1EAM	1-Ethyladamantane	17.286	613	217	10.6	17.0
135	2EAM	2-Ethyladamantane	18.122	1701	523	29.3	40.9
136	AM	Adamantane	13.045	315	125	5.4	9.8
149	13DMAM	1,3-Dimethyladamantane	13.965	971	355	16.7	27.8
149	C14DMAM	1,4-Dimethyladamantane, cis	15.699	973	380	16.8	29.7
149	T14DMAM	1,4-Dimethyladamantane, trans	15.845	924	310	15.9	24.3
149	12DMAM	1,2-Dimethyladamantane	16.597	1158	461	19.9	36.1
149	1E3MAM	1-Ethyl-3-methyladamantane	17.621	736	294	12.7	23.0
163	135TMAM	1,3,5-Trimethyladamantane	14.257	361	121	6.2	9.5
163	136TMAM	1,3,6-Trimethyladamantane	16.033	589	206	10.1	16.1
163	C134TMAM	1,3,4-Trimethyladamantane, cis	16.785	708	254	12.2	19.9
163	T134TMAM	1,3,4-Trimethyladamantane, trans	16.931	743	293	12.8	22.9
163	1E35DMAM	1-Ethyl-3,5-dimethyladamantane	17.850	604	186	10.4	14.6
177	1357TMAM	1,3,5,7-Tetramethyladamantane	14.487	61	24	1.1	1.9
177	1257TMAM	1,2,5,7-Tetramethyladamantane	17.036	465	167	8.0	13.1
187	4MDI	4-Methyldiamantane	25.727	721	171	12.4	13.4
187	1MDI	1-Methyldiamantane	27.231	613	135	10.6	10.6
187	3MDI	3-Methyldiamantane	28.317	473	101	8.1	7.9
188	DI	Diamantane	25.288	659	170	11.3	13.3
201	49DMDI	4,9-Dimethyldiamantane	26.165	182	45	3.1	3.5
201	1424DMDI	1,4 and 2,4-dimethyldiamantane	27.335	275	60	4.7	4.7
201	48DMDI	4,8-Dimethyldiamantane	27.565	311	66	5.4	5.2
201	34DMDI	3,4-Dimethyldiamantane	28.819	427	82	7.4	6.4
215	TMDI	Trimethyldiamantane	27.607	196	42	3.4	3.3

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M2040879.D**

Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	24.4	22.6
%C_{28} αββS (218)	31.0	30.3
%C_{29} αββS (218)	44.6	47.1
C_{27}/C_{29} (αββS) (218)	0.55	0.48
C_{28}/C_{29} (αββS) (218)	0.69	0.64
C_{29}/C_{27} (αββS) (218)	1.83	2.08
%C_{27} αααR (217)	25.6	33.8
%C_{28} αααR (217)	31.9	22.0
%C_{29} αααR (217)	42.4	44.2
S/R (C_{29} ααα) (217)	0.88	0.71
S/(S+R) (C_{29} ααα) (217)	0.47	0.42
ββ/(αα+ββ) (C_{29}) (217)	0.47	0.53
αββS/αααR (C_{29}) (217)	0.64	
$(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29})$ (217)	0.13	0.13
Diaster/ααα Ster (C_{27}) (217)	1.10	1.13
Terpenoids		
C19/C23 Tricyclic terpanes	0.63	0.41
C23/C24 Tricyclic terpanes	1.35	1.27
C26/C25 Tricyclic terpanes	0.94	0.98
C24 Tetracyclic/C26 Tricyclics	1.37	1.40
C24 Tetracyclic/Hopane	0.16	0.16
Ts/Tm trisnorhopanes	0.53	0.50
Ts/(Ts+Tm) trisnorhopanes	0.35	0.33
C29Ts/C29 Hopane	0.23	0.24
Bisnorhopane/Hopane	0.10	0.06
Norhopane/Hopane	0.61	0.56
Diahopane/Hopane	0.13	0.12
Oleanane/Hopane		
Gammacerane/Hopane	0.02	0.02
Moretane/(Moretane+Hopane)	0.12	0.12
H32 S/(S+R) Homohopanes	0.59	0.58
H35/H34 Homohopanes	0.48	0.43
[Steranes]/[Hopanes]	0.29	0.22
[Tricyclic terpanes]/[Hopanes]	0.41	0.37
[Tricyclic terpanes]/[Steranes]	1.41	1.69
DIAMONDOID Ratios		
Methyl Adamantane Index	0.55	0.56
Methyl Diamantane Index	0.40	0.42

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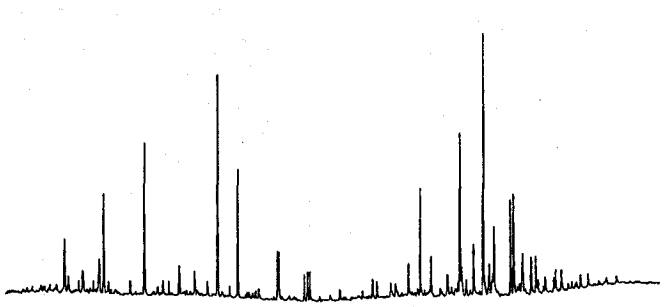
BASELINE DGSI
ANALYTICAL LABORATORIES

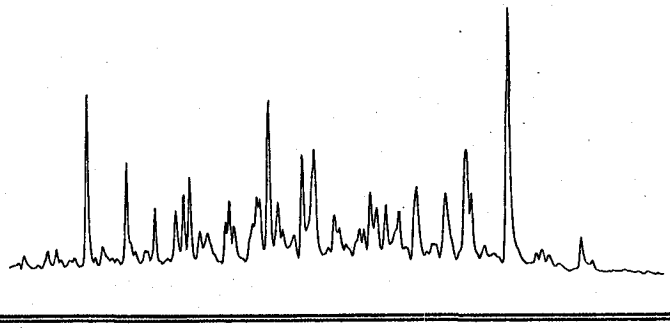
SATURATE GCMS

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Country:	**UNITED STATES**	**Project #:**	**04-180-A**
Basin:		**Lab ID:**	**CP272549**
Lease:		**Sample Type:**	**CORE**
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	**EAST TOPAGORUK-1**	**Geologic Age:**	
Latitude:		**Top Depth:**	**2249 FT**
Longitude:		**Bottom Depth:**	**FT**

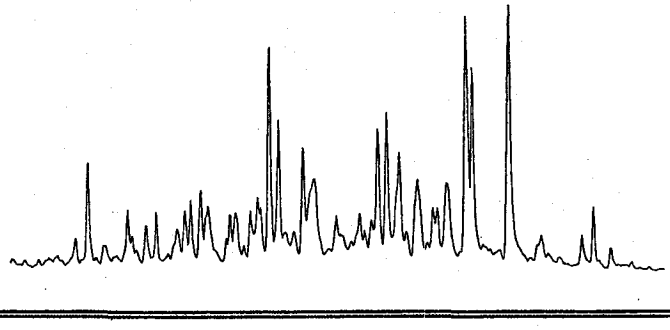
***m/z* 191: Tri- and Pentacyclics** M2040603.D



***m/z* 217: Steranes** M2040603.D



***m/z* 218: ββ Steranes** M2040603.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Steranes (*m/z* 217; 218)			
%C_{27} αββS (218)	31.5	D	
%C_{28} αββS (218)	31.6	D	
%C_{29} αββS (218)	36.9	D	
%C_{27} αααR (217)	20.5	D	
%C_{28} αααR (217)	24.5	D	
%C_{29} αααR (217)	55.0	D	
S/(S+R) (C_{29} ααα) (217)	0.29	M	0.55 (0.8%)
ββS/(ββS+ααR) (C29) (217)	0.19	M	0.70 (0.9%)
(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29}) (217)	0.32		
C_{27}/C_{29} (αββS) (218)	0.85	D	
C_{28}/C_{29} (αββS) (218)	0.86	D	
Diaster/ααα Ster (C_{27}) (217)	1.21	M/D	1.00 (1.4%)
C30 Sterane Index (218)		D	
Terpanes (*m/z* 191)			
Oleanane/Hopane	0.02	D/A	
Gammacerane/Hopane	0.04	D	
Norhopane/Hopane	0.62	D	
Bisnorhopane/Hopane	0.11		
Diahopane/Hopane	0.07	M/D	
Moretane/Hopane	0.28	M	0.05 (0.7%)
25-*nor*-hopane/hopane	0.02	B	
Ts/(Ts+Tm) trisnorhopanes	0.24	M/D	1.00 (1.4%)
C29Ts/C29 Hopane	0.20	M	
H32 S/(R+S) Homohopanes	0.48	M	0.60 (0.6%)
H35/H34 Homohopanes	0.62	D	
C24 Tetracyclic/Hopane	0.10	D	
C24 Tetracyclic/C26 Tricyclics	0.46	D	
C23/C24 Tricyclic terpanes	1.79	D	
C19/C23 Tricyclic terpanes	0.38	D	
C26/C25 Tricyclic terpanes	0.61	D	
(C28+C29 Tricyclics)/Ts	2.24	A	
Various (*m/z* 191; 217)			
Steranes/Hopanes	0.41	D	
Tricyclic terpanes/Hopanes	0.88	M	1.00 (1.4%)
Tricyclic terpanes/Steranes	2.18	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

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M2040603.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
217	CHOL	*5β cholane (internal standard)*	62.279	8349	2107	100.0	100.0
125	H30_125	C30 17α(H)-hopane (125)	76.492	1232	290	14.8	13.8
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	44.591	9137	1469	109.4	69.7
191	TR20	C20 tricyclic terpane	47.602	12824	2831	153.6	134.4
191	TR21	C21 tricyclic terpane	50.678	16823	4279	201.5	203.1
191	TR22	C22 tricyclic terpane	53.385	3738	833	44.8	39.5
191	TR23	C23 tricyclic terpane	56.385	23851	6251	285.7	296.7
191	TR24	C24 tricyclic terpane	57.945	13320	3607	159.5	171.2
191	C24DEOL	C24 des-A-oleanane	59.549	1166	279	14.0	13.2
191	C24DELUP	C24 des-A-lupane					
191	TR25A	C25 tricyclic terpane (a)	61.022	6082	1380	72.8	65.5
191	TR25B	C25 tricyclic terpane (b)	61.109	4763	1351	57.0	64.1
191	C24DEURS	C24 des-A-ursane					
191	C24DEHOP	C24 des-E-hopane					
191	TET24	C24 tetracyclic terpane (TET)	62.994	3069	744	36.8	35.3
191	TR26A	C26 tricyclic terpane (a)	63.254	3375	839	40.4	39.8
191	TR26B	C26 tricyclic terpane (b)	63.427	3276	840	39.2	39.9
191	TR28A	C28 tricyclic terpane (a)	68.107	2441	530	29.2	25.2
191	TR28B	C28 tricyclic terpane (b)	68.432	1896	464	22.7	22.0
191	TR29A	C29 tricyclic terpane (a)	69.472	1816	389	21.8	18.5
191	TR29B	C29 tricyclic terpane (b)	69.862	2012	382	24.1	18.1
191	TS	Ts 18α(H)-trisnorhopane	70.859	3640	907	43.6	43.0
191	TM	Tm 17α(H)-trisnorhopane	71.726	11512	3038	137.9	144.2
191	TR30A	C30 tricyclic terpane (a)	72.051	724	157	8.7	7.5
191	TR30B	C30 tricyclic terpane (b)	72.484	1013	455	12.1	21.6
191	H28	C28 17α18α21β(H)-bisnorhopane	73.741	3301	578	39.5	27.4
191	NOR25H	C29 Nor-25-hopane	74.087	766	227	9.2	10.8
191	H29	C29 Tm 17α(H)21β(H)-norhopane	74.694	19080	4603	228.5	218.5
191	C29TS	C29 Ts 18α(H)-norneohopane	74.846	3832	793	45.9	37.6
191	DH30	C30 17α(H)-diahopane	75.192	2124	455	25.4	21.6
191	M29	C29 normoretane	75.734	6413	1438	76.8	68.2
191	OL	oleanane	76.232	735	139	8.8	6.6
191	H30	C30 17α(H)-hopane	76.492	30672	7400	367.4	351.2
191	M30	C30 moretane	77.316	8571	1940	102.7	92.1
191	TARAX	Taraxerane					
191	H31S	C31 22S 17α(H) hopane	78.572	11925	2695	142.8	127.9
191	H31R	C31 22R 17α(H) hopane	78.811	13001	2848	155.7	135.2
191	GAM	gammacerane	79.114	1087	226	13.0	10.7

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M2040603.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
191	H32S	C32 22S 17α(H) hopane	80.176	4620	1029	55.3	48.8
191	H32R	C32 22R 17α(H) hopane	80.522	4963	1041	59.4	49.4
191	H33S	C33 22S 17α(H) hopane	82.061	3309	624	39.6	29.6
191	H33R	C33 22R 17α(H) hopane	82.538	2958	594	35.4	28.2
191	H34S	C34 22S 17α(H) hopane	83.989	2006	378	24.0	17.9
191	H34R	C34 22R 17α(H) hopane	84.574	1743	350	20.9	16.6
191	H35S	C35 22S 17α(H) hopane	85.983	1197	202	14.3	9.6
191	H35R	C35 22R 17α(H) hopane	86.763	1131	221	13.5	10.5
217	S21	C21 sterane	53.797	15865	3140	190.0	149.0
217	DIA27S	C27 βα 20S diasterane	65.680	6448	1544	77.2	73.3
217	C27R	C27 αα 20R sterane	70.296	5329	1016	63.8	48.2
217	C28R	C28 αα 20R sterane	72.722	6366	737	76.2	35.0
217	C29S	C29 αα 20S sterane	73.329	5706	680	68.3	32.3
217	C29BBR	C29 ββ 20R sterane(+5 βαα)	73.762	7573	1075	90.7	51.0
217	C29BBS	C29 ββ 20S sterane	73.871	3446	687	41.3	32.6
217	C29R	C29 αα 20R sterane	74.651	14284	2343	171.1	111.2
218	C27ABBR	C27 ββ 20R sterane	69.602	4951	1016	59.3	48.2
218	C27ABBS	C27 ββ 20S sterane	69.797	3702	679	44.3	32.2
218	C28ABBR	C28 ββ 20R sterane	71.877	3695	635	44.3	30.1
218	C28ABBS	C28 ββ 20S sterane	72.072	3718	714	44.5	33.9
218	C29ABBR	C29 ββ 20R sterane	73.741	6624	1160	79.3	55.1
218	C29ABBS	C29 ββ 20S sterane	73.871	4338	921	52.0	43.7
218	C30ABBR	C30 ββ 20R sterane					
218	C30ABBS	C30 ββ 20S sterane					
259	D27S	C27 βα 20S diasterane	65.680	3423	864	41.0	41.0
259	D27R	C27 βα 20R diasterane	66.525	2364	564	28.3	26.8
259	D28SA	C28 βα 20S diasterane a	67.760	1812	393	21.7	18.7
259	D28SB	C28 βα 20S diasterane b	67.890	1964	395	23.5	18.7
259	D28RA	C28 βα 20R diasterane a	68.670	1269	288	15.2	13.7
259	D28RB	C28 βα 20R diasterane b	68.757	1043	272	12.5	12.9
259	D29S	C29 βα 20S diasterane	69.602	4414	735	52.9	34.9
259	D29R	C29 βα 20R diasterane	70.556	4113	567	49.3	26.9
259	C30TP1	C30 tetracyclic polyprenoid	75.582	351	77	4.2	3.7
259	C30TP2	C30 tetracyclic polyprenoid	75.691	402	81	4.8	3.8

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M2040603.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
135	1MAM	1-Methyladamantane	13.341	20205	8374	242.0	397.4
135	2MAM	2-Methyladamantane	15.200	11544	4729	138.3	224.4
135	1EAM	1-Ethyladamantane	17.101	11216	3684	134.3	174.8
135	2EAM	2-Ethyladamantane	17.937	23951	7575	286.9	359.5
136	AM	Adamantane	12.839	1677	673	20.1	31.9
149	13DMAM	1,3-Dimethyladamantane	13.738	23251	7981	278.5	378.8
149	C14DMAM	1,4-Dimethyladamantane, cis	15.492	18825	8044	225.5	381.8
149	T14DMAM	1,4-Dimethyladamantane, trans	15.660	19498	6780	233.5	321.8
149	12DMAM	1,2-Dimethyladamantane	16.391	23023	9450	275.8	448.5
149	1E3MAM	1-Ethyl-3-methyladamantane	17.414	10331	4126	123.7	195.8
163	135TMAM	1,3,5-Trimethyladamantane	14.051	6991	2629	83.7	124.8
163	136TMAM	1,3,6-Trimethyladamantane	15.827	10190	3559	122.1	168.9
163	C134TMAM	1,3,4-Trimethyladamantane, cis	16.600	12276	4175	147.0	198.1
163	T134TMAM	1,3,4-Trimethyladamantane, trans	16.725	13923	5869	166.8	278.5
163	1E35DMAM	1-Ethyl-3,5-dimethyladamantane	17.665	8366	2607	100.2	123.7
177	1357TMAM	1,3,5,7-Tetramethyladamantane	14.281	673	285	8.1	13.5
177	1257TMAM	1,2,5,7-Tetramethyladamantane	16.830	4649	2016	55.7	95.7
187	4MDI	4-Methyldiamantane	25.520	5549	1469	66.5	69.7
187	1MDI	1-Methyldiamantane	27.025	4042	975	48.4	46.3
187	3MDI	3-Methyldiamantane	28.090	2848	667	34.1	31.7
188	DI	Diamantane	25.082	5695	1618	68.2	76.8
201	49DMDI	4,9-Dimethyldiamantane	25.959	1676	431	20.1	20.5
201	1424DMDI	1,4 and 2,4-dimethyldiamantane	27.108	2012	484	24.1	23.0
201	48DMDI	4,8-Dimethyldiamantane	27.338	2270	557	27.2	26.4
201	34DMDI	3,4-Dimethyldiamantane	28.592	2691	598	32.2	28.4
215	TMDI	Trimethyldiamantane	27.380	1671	398	20.0	18.9

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M2040603.D**

Miscellaneous Ratios	By Areas	By Heights
Steroids		
%C_{27} αββS (218)	31.5	29.3
%C_{28} αββS (218)	31.6	30.9
%C_{29} αββS (218)	36.9	39.8
C_{27}/C_{29} (αββS) (218)	0.85	0.74
C_{28}/C_{29} (αββS) (218)	0.86	0.78
C_{29}/C_{27} (αββS) (218)	1.17	1.36
%C_{27} αααR (217)	20.5	24.8
%C_{28} αααR (217)	24.5	18.0
%C_{29} αααR (217)	55.0	57.2
S/R (C_{29} ααα) (217)	0.40	0.29
S/(S+R) (C_{29} ααα) (217)	0.29	0.22
ββ/(αα+ββ) (C_{29}) (217)	0.36	0.37
αββS/αααR (C_{29}) (217)	0.24	
$(C_{21}+C_{22})/(C_{27}+C_{28}+C_{29})$ (217)	0.32	0.39
Diaster/ααα Ster (C_{27}) (217)	1.21	1.52
Terpenoids		
C19/C23 Tricyclic terpanes	0.38	0.24
C23/C24 Tricyclic terpanes	1.79	1.73
C26/C25 Tricyclic terpanes	0.61	0.61
C24 Tetracyclic/C26 Tricyclics	0.46	0.44
C24 Tetracyclic/Hopane	0.10	0.10
Ts/Tm trisnorhopanes	0.32	0.30
Ts/(Ts+Tm) trisnorhopanes	0.24	0.23
C29Ts/C29 Hopane	0.20	0.17
Bisnorhopane/Hopane	0.11	0.08
Norhopane/Hopane	0.62	0.62
Diahopane/Hopane	0.07	0.06
Oleanane/Hopane	0.02	0.02
Gammacerane/Hopane	0.04	0.03
Moretane/(Moretane+Hopane)	0.22	0.21
H32 S/(S+R) Homohopanes	0.48	0.50
H35/H34 Homohopanes	0.62	0.58
[Steranes]/[Hopanes]	0.41	0.29
[Tricyclic terpanes]/[Hopanes]	0.88	0.94
[Tricyclic terpanes]/[Steranes]	2.18	3.22
DIAMONDOID Ratios		
Methyl Adamantane Index	0.64	0.64
Methyl Diamantane Index	0.45	0.47

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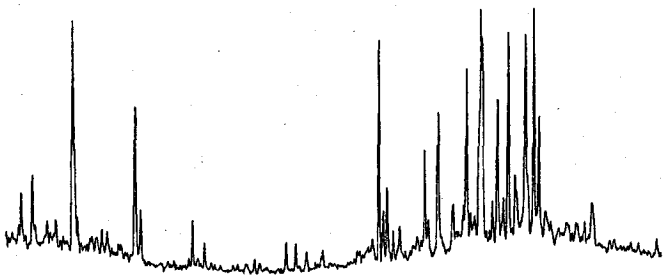
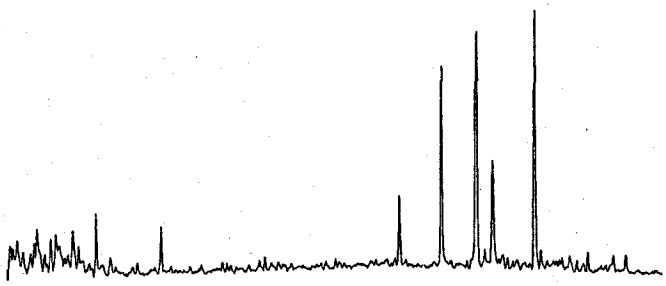
BASELINE DGSI ANALYTICAL LABORATORIES — AROMATIC GCMS

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Country:	**UNITED STATES**	**Project #:**	**04-180-A**
Basin:	**NORTH SLOPE**	**Lab ID:**	**CP273047**
Lease:		**Sample Type:**	**CORE**
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	**MEADE 1**	**Geologic Age:**	
Latitude:		**Top Depth:**	**2959 FT**
Longitude:		**Bottom Depth:**	**FT**

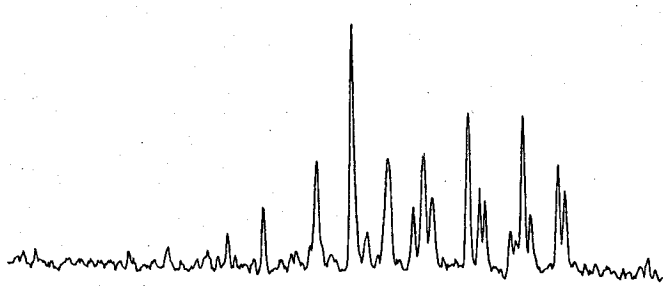
***m/z* 253: Monoaromatic steroids** M1040829.D



***m/z* 231: Triaromatic steroids** M1040829.D



***m/z* 245 Triaromatic Methylsteroids** M1040829.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.10	M	1.0 (1.3%)
TAS #1 20/20+27	0.32	M	
TAS #2 21/21+28	0.14	M	
%26 TAS	13.7	D	
%27 TAS	28.2	D	
%28 TAS	55.0	D	
%29 TAS	3.1	D	
C28/C26 20S TAS	4.66		
C28/C27 20R TAS	1.95		
Dia/Regular C27 MAS	1.31		
%27 MAS	19.8	D	
%28 MAS	42.3	D	
%29 MAS	37.9	D	
(C21+C22)/Σ MAS	0.22	M	1.0 (1.3%)
TAS/(MAS+TAS)	0.53	M	
TA28/(TA28+MA29)	0.66	M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index	0.20	A	
C4/C3+C4 Mester	0.55	A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.67	M	
Rc(a) if Ro < 1.3 (Ro%)	0.77	M	
Rc(b) if Ro > 1.3 (Ro%)	1.90	M	
MPI-2	0.78	M	
DNR-1	8.69	M	
DNR-2	2.17	M	
TNR1	1.04	M	
TDE-1	9.04	M	
TDE-2	0.22	M	
MDR	1.61	M	
Rm (Ro%)	0.69	M	
MDR23	0.91	M	
MDR1	0.82	M	
DBT/Phenanthrene	0.04	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:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M1040829.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)	75.093	17675	4298	300.0	300.0
92	16AB	C16 Alkyl Benzene	66.821	6184	1377	105.0	96.1
92	17AB	C17 Alkyl Benzene	71.667	8763	2187	148.7	152.7
92	18AB	C18 Alkyl Benzene	75.842	16392	4142	278.2	289.1
92	1THIO92	Dimethyl dibenzothiophene 1	77.620	3583	453	60.8	31.6
92	2THIO92	Dimethyl dibenzothiophene 2	78.299	3740	628	63.5	43.8
92	19AB	C19 Alkyl Benzene	79.606	27673	7329	469.7	511.6
92	20AB	C20 Alkyl Benzene	83.040	37068	10151	629.2	708.5
92	21AB	C21 Alkyl Benzene	86.246	50262	13123	853.1	916.0
92	22AB	C22 Alkyl Benzene	89.245	47746	13723	810.4	957.9
92	23AB	C23 Alkyl Benzene	92.103	46040	12806	781.4	893.9
92	PHYBz	Phytanyl Benzene	94.003	7203	988	122.3	69.0
92	24AB	C24 Alkyl Benzene	94.822	43108	11243	731.7	784.8
92	25AB	C25 Alkyl Benzene	97.419	45141	11960	766.2	834.8
92	26AB	C26 Alkyl Benzene	99.912	38826	10196	659.0	711.7
106	16ATM	C16 Alkyl Toluene (meta)	66.072	6543	1469	111.1	102.5
106	16ATO	C16 Alkyl Toluene (ortho)	67.013	3969	839	67.4	58.6
106	17ATM	C17 Alkyl Toluene (meta)	70.970	13160	3194	223.4	222.9
106	17ATO	C17 Alkyl Toluene (ortho)	71.824	6474	1552	109.9	108.3
106	18ATM	C18 Alkyl Toluene (meta)	75.198	21630	5395	367.1	376.6
106	18ATO	C18 Alkyl Toluene (ortho)	75.999	11080	2762	188.1	192.8
106	1THIO106	Dimethyl dibenzothiophene 1					
106	2THIO106	Dimethyl dibenzothiophene 2					
106	19ATM	C19 Alkyl Toluene (meta)	78.979	34720	9833	589.3	686.3
106	19ATO	C19 Alkyl Toluene (ortho)	79.728	15613	4135	265.0	288.6
106	20ATM	C20 Alkyl Toluene (meta)	82.430	53499	14606	908.0	1019.5
106	20ATO	C20 Alkyl Toluene (ortho)	83.162	23173	6505	393.3	454.0
106	21ATM	C21 Alkyl Toluene (meta)	85.654	63946	17802	1085.4	1242.6
106	21ATO	C21 Alkyl Toluene (ortho)	86.368	29368	7564	498.5	528.0
106	22ATM	C22 Alkyl Toluene (meta)	88.670	73688	21092	1250.7	1472.2
106	22ATO	C22 Alkyl Toluene (ortho)	89.367	32007	8425	543.3	588.1
106	23ATM	C23 Alkyl Toluene (meta)	91.528	70379	18961	1194.6	1323.5
106	23ATO	C23 Alkyl Toluene (ortho)	92.225	26195	7014	444.6	489.6
106	24ATM	C24 Alkyl Toluene (meta)	94.265	61150	15905	1037.9	1110.2
106	24ATO	C24 Alkyl Toluene (ortho)	94.944	25573	6430	434.1	448.8
106	PHYTL	Phytanyl Toluene	95.938	37975	5880	644.6	410.4
106	25ATM	C25 Alkyl Toluene (meta)	96.862	61663	16945	1046.6	1182.8
106	25ATO	C25 Alkyl Toluene (ortho)	97.541	21625	5485	367.0	382.9
106	26ATM	C26 Alkyl Toluene (meta)	99.354	62909	15335	1067.8	1070.4
106	26ATO	C26 Alkyl Toluene (ortho)	100.016	12242	3723	207.8	259.9
134	15AI	C15 Aryl Isoprenoids	60.931	1220	227	20.7	15.8
134	16AI	C16 Aryl Isoprenoids	66.124	1650	292	28.0	20.4
134	17AI	C17 Aryl Isoprenoids	70.778	975	195	16.5	13.6
134	18AI	C18 Aryl Isoprenoids	74.936	3556	938	60.4	65.5
134	19AI	C19 Aryl Isoprenoids	77.236	10055	1946	170.7	135.8
134	20AI	C20 Aryl Isoprenoids	81.053	8692	2182	147.5	152.3
134	21AI	C21 Aryl Isoprenoids	83.876	5012	1216	85.1	84.9
134	22AI	C22 Aryl Isoprenoids	86.786	3996	914	67.8	63.8
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M1040829.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene	38.010	144013	25247	2444.4	1762.2
142	1MN	1-Methylnaphthalene	39.230	79512	13422	1349.6	936.9
149	MTTC578	5,7,8,-triMe-MTTChroman					
156	2EN	2-Ethylnaphthalene	46.201	15936	2401	270.5	167.6
156	1EN	1-Ethylnaphthalene	46.288	3439	1046	58.4	73.0
156	26DMN	2,6-Dimethylnaphthalene	47.124	56367	9067	956.7	632.9
156	27DMN	2,7-Dimethylnaphthalene	47.264	54420	9320	923.7	650.5
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.257	107987	15153	1832.9	1057.7
156	16DMN	1,6-Dimethylnaphthalene	48.519	91720	15561	1556.8	1086.2
156	23DMN	2,3-Dimethylnaphthalene	49.721	11562	2310	196.2	161.2
156	14DMN	1,4-Dimethylnaphthalene	49.791	39567	5824	671.6	406.5
156	15DMN	1,5-Dimethylnaphthalene	49.895	12743	3079	216.3	214.9
156	12DMN	1,2-Dimethylnaphthalene	50.854	17254	2783	292.9	194.3
161	MTTC8	8-Me-MTTChroman					
168	2MBP	2-Methylbiphenyl	46.671	1636	287	27.8	20.0
168	DPM	Diphenylmethane	48.919	2175	370	36.9	25.8
168	3MBP	3-Methylbiphenyl	53.363	68877	11579	1169.1	808.2
168	4MBP	4-Methylbiphenyl	54.025	26126	4399	443.4	307.1
168	DBF	Dibenzofuran	55.437	40014	6256	679.2	436.7
170	BB_EMN	Ethyl-methyl-Naphthalene	55.193	24345	3250	413.2	226.9
170	AB_EMN	Ethyl-methyl-Naphthalene	56.413	9702	1587	164.7	110.8
170	137TMN	1,3,7-Trimethylnaphthalene	56.849	35929	5908	609.8	412.4
170	136TMN	1,3,6-Trimethylnaphthalene	57.232	51609	8586	876.0	599.3
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.295	40623	6185	689.5	431.7
170	236TMN	2,3,6-Trimethylnaphthalene	58.556	42087	7390	714.3	515.8
170	127TMN	1,2,7-Trimethylnaphthalene	59.306	11190	1981	189.9	138.3
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.480	50145	7744	851.1	540.5
170	124TMN	1,2,4-Trimethylnaphthalene	60.408	4139	736	70.3	51.4
170	125TMN	1,2,5-Trimethylnaphthalene	60.844	37406	6833	634.9	476.9
178	PHEN	Phenanthrene	70.342	236658	50724	4016.8	3540.5
184	1357	1,3,5,7-Tetramethylnaphthalene	64.817	11277	1907	191.4	133.1
184	1367	1,3,6,7-Tetramethylnaphthalene	65.967	15503	3303	263.1	230.5
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.717	10338	1954	175.5	136.4
184	1257	1,2,5,7-Tetramethylnaphthalene	66.891	8657	1661	146.9	115.9
184	2367	2,3,6,7-Tetramethylnaphthalene	67.274	3793	822	64.4	57.4
184	1267	1,2,6,7-Tetramethylnaphthalene	67.693	6075	1250	103.1	87.3
184	1237	1,2,3,7-Tetramethylnaphthalene	67.884	2216	503	37.6	35.1
184	1236	1,2,3,6-Tetramethylnaphthalene	68.164	4380	952	74.3	66.5
184	1256	1,2,5,6-Tetramethylnaphthalene	68.861	21912	4590	371.9	320.4
184	DBT	Dibenzothiophene	69.070	8744	1741	148.4	121.5
191	BH32	C32 Benzohopane	115.871	2430	964	41.2	67.3
191	BH33	C33 Benzohopane	116.847	2319	735	39.4	51.3
191	BH34	C34 Benzohopane	117.719	1053	321	17.9	22.4
191	BH35	C35 Benzohopane	118.817	658	164	11.2	11.4
192	3MP	3-Methylphenanthrene	75.285	75694	16632	1284.8	1160.9
192	2MP	2-Methylphenanthrene	75.459	106703	23760	1811.1	1658.4
192	9MP	9-Methylphenanthrene	76.156	94039	20664	1596.1	1442.3
192	1MP	1-Methylphenanthrene	76.348	79469	17594	1348.8	1228.1

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M1040829.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene	66.316	11309	2359	191.9	164.7
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene	73.176	1453	305	24.7	21.3
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene	73.490	1738	373	29.5	26.0
198	4MDBT	4 Methyl Dibenzothiophene	73.629	11551	2564	196.1	179.0
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.396	7983	1295	135.5	90.4
198	1MDBT	1 Methyl Dibenzothiophene	75.215	7185	1578	122.0	110.1
206	36DMP	3,6-Dimethylphenanthrene	79.519	13882	2912	235.6	203.3
206	26DMP	2,6-Dimethylphenanthrene	79.781	30937	6859	525.1	478.8
206	27DMP	2,7-Dimethylphenanthrene	79.885	22539	5756	382.6	401.8
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.391	94031	19022	1596.0	1327.7
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.582	49607	8510	842.0	594.0
206	17DMP	1,7-Dimethylphenanthrene	80.739	46165	11405	783.6	796.1
206	23DMP	2,3-Dimethylphenanthrene	81.018	19385	4160	329.0	290.4
206	19DMP	1,9-Dimethylphenanthrene	81.123	18471	4267	313.5	297.8
206	18DMP	1,8-Dimethylphenanthrene	81.541	8334	1864	141.5	130.1
206	12DMP	1,2-Dimethylphenanthrene	82.046	8024	1878	136.2	131.1
206	9_10DMP	9,10-Dimethylphenanthrene	82.691	1554	382	26.4	26.7
212	DMDBT	Dimethyldibenzothiophene	77.620	42716	2094	725.0	146.2
219	RET	Retene	86.333	61403	15417	1042.2	1076.1
226	TMDBT	Trimethyldibenzothiophene	81.715	31269	972	530.7	67.8
231	231A20	C20 Triaromatic Steroid	92.382	3654	776	62.0	54.2
231	231B21	C21 Triaromatic	94.875	2333	574	39.6	40.1
231	231C26	C26 20S Triaromatic	104.035	3697	865	62.8	60.4
231	231D26	C27 20S & C26 20R Triaromatic	105.621	12046	2447	204.5	170.8
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic	106.946	17223	2866	292.3	200.0
231	231F27	C27 20R Triaromatic	107.573	7614	1306	129.2	91.2
231	TADMD3	C28 23,24-Cholestane Triaromatic					
231	C29TA1	C29 Triaromatic	107.957	1408	186	23.9	13.0
231	C29TA2	C29 Triaromatic	108.131	573	145	9.7	10.1
231	TADMD4	C28 23,24-Cholestane Triaromatic					
231	231G28	C28 20R Triaromatic	109.177	14827	3148	251.7	219.7
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic	110.485	838	183	14.2	12.8
245	C3S	C27 20S 3-Methyl Triaromatic Steroid	106.702	720	174	12.2	12.1
245	C4S	C27 20S 4-Methyl Triaromatic Steroid	107.312	1289	292	21.9	20.4
245	E2S	C28 20S 2-Methyl Triaromatic Steroid	107.870	471	101	8.0	7.1
245	E3SC3R	C28 20S 3-Methyl & C27 20R 3-Methyl TAS	108.218	3165	490	53.7	34.2
245	E4SC4R	C28 20S 4-Methyl & C27 20R 4-Methyl TAS	108.811	5881	1080	99.8	75.4
245	S2S	C29 20S 2-Methyl Triaromatic Steroid	109.073	1283	190	21.8	13.3
245	DA	Triaromatic Dinosteroid a	109.247	431	91	7.3	6.4
245	S3S	C29 20S 3-Methyl Triaromatic Steroid	109.421	4170	505	70.8	35.2
245	DB	Triaromatic Dinosteroid b	109.840	1536	301	26.1	21.0
245	S4SE2R	C29 20S 4-Methyl & C28 20R 2-Methyl TAS	110.014	3583	533	60.8	37.2
245	E3R	C28 20R 3-Methyl Triaromatic Steroid	110.153	2244	343	38.1	23.9
245	E4R	C28 20R 4-Methyl Triaromatic Steroid	110.746	4041	711	68.6	49.6
245	DC	Triaromatic Dinosteroid c	110.938	1657	390	28.1	27.2
245	DD	Triaromatic Dinosteroid d	111.042	1539	338	26.1	23.6

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M1040829.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
245	S2R	C29 20R 2-Methyl Triaromatic Steroid	111.461	1045	209	17.7	14.6
245	S3R	C29 20R 3-Methyl Triaromatic Steroid	111.670	3502	700	59.4	48.9
245	DE	Triaromatic Dinosteroid e	111.792	1551	280	26.3	19.5
245	S4R	C29 20R 4-Methyl Triaromatic Steroid	112.263	2478	494	42.1	34.5
245	DF	Triaromatic Dinosteroid f	112.367	1905	386	32.3	26.9
253	S253A	C21 Ring-C Monoaromatic Steroid	84.625	7274	1519	123.5	106.0
253	S253B	C22 Monoaromatic steroid	87.100	4945	1012	83.9	70.6
253	S253C	C27 Reg 5β(H),10β(CH3) 20S	97.053	1555	333	26.4	23.2
253	S253D	C27 Dia 10β(H),5β(CH3) 20S	97.193	2031	484	34.5	33.8
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R	98.674	2852	666	48.4	46.5
253	S253F	C27 Reg 5α(H),10β(CH3) 20S	98.814	935	208	15.9	14.5
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S	99.214	5332	910	90.5	63.5
253	S253H	C27 Reg 5α(H),10β(CH3) 20R	100.461	1189	228	20.2	15.9
253	S253I	C28 Reg 5α(H),10β(CH3) 20S	100.635	1577	207	26.8	14.4
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R	100.879	10279	1564	174.5	109.2
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S	100.949	6247	1377	106.0	96.1
253	S253L	C29 Reg 5α(H),10β(CH3) 20S	102.309	1619	366	27.5	25.5
253	S253M	C28 Reg 5α(H),10β(CH3) 20R	102.570	1111	261	18.9	18.2
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R	102.640	7292	1397	123.8	97.5
253	S253O	C29 Reg 5α(H),10β(CH3) 20R	104.244	1257	157	21.3	11.0

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134517**
Well Name:	**MEADE 1**	**Project #:**	**04-180-A**
Depth:	**2959 - FT**	**Lab ID:**	**CP273047**
Sampling Point:		**File Name:**	**M1040829.D**

Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.10	0.11
TAS #1 20/20+27	0.32	0.37
TAS #2 21/21+28	0.14	0.15
%26TAS	13.7	15.7
%27TAS	28.2	23.7
%28TAS	55.0	57.2
%29TAS	3.1	3.3
C28/C26 20S TAS	4.66	3.31
C28/C27 20R TAS	1.95	2.41
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS	1.31	1.45
%27 MAS	19.8	23.5
%28 MAS	42.3	36.1
%29 MAS	37.9	40.4
(C21+C22)/Σ MAS	0.22	0.24
TAS/(MAS+TAS)	0.53	0.53
TA28/(TA28+MA29)	0.66	0.65
Triaromatic Methylsteroids m/z 245		
Dinosteroid Index	0.20	0.23
C4/C3+C4 Mester	0.55	0.55
Phenanthrenes and Naphthalenes		
MPI-1	0.67	0.68
MPI-2	0.78	0.80
Rc(a) if Ro < 1.3 (Ro%)	0.77	0.78
Rc(b) if Ro > 1.3 (Ro%)	1.90	1.89
DNR-1	8.69	5.97
DNR-2	2.17	2.26
TNR1	1.04	1.19
TDE-1	9.04	9.28
TDE-2	0.22	0.26
MDR	1.61	1.62
Rm (Ro%)	0.69	0.69
MDR23	0.91	0.74
MDR1	0.82	0.91
DBT/Phenanthrene	0.04	0.03

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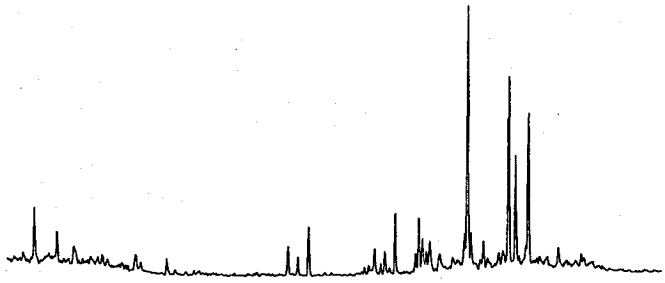
BASELINE DGSI
ANALYTICAL LABORATORIES

AROMATIC GCMS

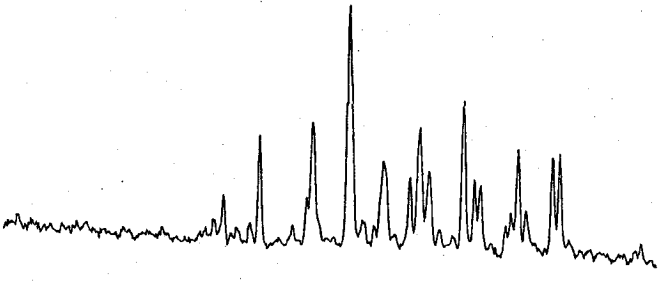
Company:	CONOCOPHILLIPS	**Client ID:**	US134516
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273046
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	OUMALIK 1	**Geologic Age:**	
Latitude:	69.8416	**Top Depth:**	1625 FT
Longitude:	-155.971	**Bottom Depth:**	FT

***m/z* 253: Monoaromatic steroids** M1040828.D



***m/z* 231: Triaromatic steroids** M1040828.D

***m/z* 245 Triaromatic Methylsteroids** M1040828.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.40	M	1.0 (1.3%)
TAS #1 20/20+27	0.74	M	
TAS #2 21/21+28	0.51	M	
%26 TAS	21.9	D	
%27 TAS	32.5	D	
%28 TAS	45.7	D	
%29 TAS		D	
C28/C26 20S TAS	2.32		
C28/C27 20R TAS	1.41		
Dia/Regular C27 MAS	3.00		
%27 MAS	43.4	D	
%28 MAS	28.7	D	
%29 MAS	27.9	D	
(C21+C22)/Σ MAS	0.14	M	1.0 (1.3%)
TAS/(MAS+TAS)	0.57	M	
TA28/(TA28+MA29)	0.60	M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index	0.20	A	
C4/C3+C4 Mester	0.59	A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.62	M	
Rc(a) if Ro < 1.3 (Ro%)	0.74	M	
Rc(b) if Ro > 1.3 (Ro%)	1.93	M	
MPI-2	0.65	M	
DNR-1	8.35	M	
DNR-2	2.17	M	
TNR1	0.98	M	
TDE-1	6.28	M	
TDE-2	0.21	M	
MDR	0.96	M	
Rm (Ro%)	0.61	M	
MDR23	1.30	M	
MDR1	1.63	M	
DBT/Phenanthrene	0.04	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:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M1040828.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)	75.109	22823	5740	300.0	300.0
92	16AB	C16 Alkyl Benzene	66.838	36020	7626	473.5	398.6
92	17AB	C17 Alkyl Benzene	71.684	25160	5884	330.7	307.5
92	18AB	C18 Alkyl Benzene	75.858	17782	4630	233.7	242.0
92	1THIO92	Dimethyl dibenzothiophene 1	77.618	3446	560	45.3	29.3
92	2THIO92	Dimethyl dibenzothiophene 2	78.315	3180	461	41.8	24.1
92	19AB	C19 Alkyl Benzene	79.605	12885	3492	169.4	182.5
92	20AB	C20 Alkyl Benzene	83.038	10550	2770	138.7	144.8
92	21AB	C21 Alkyl Benzene	86.244	8810	2406	115.8	125.7
92	22AB	C22 Alkyl Benzene	89.245	6379	1772	83.9	92.6
92	23AB	C23 Alkyl Benzene	92.103	4921	1275	64.7	66.6
92	PHYBz	Phytanyl Benzene	94.020	650	99	8.5	5.2
92	24AB	C24 Alkyl Benzene	94.805	2913	708	38.3	37.0
92	25AB	C25 Alkyl Benzene	97.402	1751	423	23.0	22.1
92	26AB	C26 Alkyl Benzene	99.894	1191	275	15.7	14.4
106	16ATM	C16 Alkyl Toluene (meta)	66.088	41635	9861	547.3	515.4
106	16ATO	C16 Alkyl Toluene (ortho)	67.047	23321	4773	306.5	249.5
106	17ATM	C17 Alkyl Toluene (meta)	70.987	39343	9515	517.1	497.3
106	17ATO	C17 Alkyl Toluene (ortho)	71.840	17911	4403	235.4	230.1
106	18ATM	C18 Alkyl Toluene (meta)	75.213	26946	7014	354.2	366.6
106	18ATO	C18 Alkyl Toluene (ortho)	76.015	12767	3106	167.8	162.3
106	1THIO106	Dimethyl dibenzothiophene 1	77.583	6413	708	84.3	37.0
106	2THIO106	Dimethyl dibenzothiophene 2	78.210	2706	453	35.6	23.7
106	19ATM	C19 Alkyl Toluene (meta)	78.995	18231	4775	239.6	249.6
106	19ATO	C19 Alkyl Toluene (ortho)	79.744	8227	2263	108.1	118.3
106	20ATM	C20 Alkyl Toluene (meta)	82.445	15773	4279	207.3	223.6
106	20ATO	C20 Alkyl Toluene (ortho)	83.177	6940	1868	91.2	97.6
106	21ATM	C21 Alkyl Toluene (meta)	85.652	14329	3462	188.3	180.9
106	21ATO	C21 Alkyl Toluene (ortho)	86.349	14172	2811	186.3	146.9
106	22ATM	C22 Alkyl Toluene (meta)	88.669	9178	2476	120.6	129.4
106	22ATO	C22 Alkyl Toluene (ortho)	89.367	6028	1454	79.2	76.0
106	23ATM	C23 Alkyl Toluene (meta)	91.528	7448	1753	97.9	91.6
106	23ATO	C23 Alkyl Toluene (ortho)	92.225	2975	790	39.1	41.3
106	24ATM	C24 Alkyl Toluene (meta)	94.247	5153	1130	67.7	59.1
106	24ATO	C24 Alkyl Toluene (ortho)	94.944	1778	438	23.4	22.9
106	PHYTL	Phytanyl Toluene	96.025	3695	397	48.6	20.7
106	25ATM	C25 Alkyl Toluene (meta)	96.861	2240	595	29.4	31.1
106	25ATO	C25 Alkyl Toluene (ortho)	97.541	837	218	11.0	11.4
106	26ATM	C26 Alkyl Toluene (meta)	99.354	1912	430	25.1	22.5
106	26ATO	C26 Alkyl Toluene (ortho)	100.016	635	152	8.3	7.9
134	15AI	C15 Aryl Isoprenoids	60.965	5445	996	71.6	52.1
134	16AI	C16 Aryl Isoprenoids	66.158	6040	1022	79.4	53.4
134	17AI	C17 Aryl Isoprenoids	70.795	1737	319	22.8	16.7
134	18AI	C18 Aryl Isoprenoids	74.952	4028	861	52.9	45.0
134	19AI	C19 Aryl Isoprenoids	77.252	6025	1056	79.2	55.2
134	20AI	C20 Aryl Isoprenoids	81.068	3732	861	49.1	45.0
134	21AI	C21 Aryl Isoprenoids	83.892	1525	387	20.0	20.2
134	22AI	C22 Aryl Isoprenoids	86.802	1001	234	13.2	12.2
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M1040828.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene	38.098	1774282	261092	23322.3	13645.9
142	1MN	1-Methylnaphthalene	39.300	1139622	178390	14979.9	9323.5
149	MTTC578	5,7,8,-triMe-MTTChroman	103.267	456	67	6.0	3.5
156	2EN	2-Ethylnaphthalene	46.236	153005	21923	2011.2	1145.8
156	1EN	1-Ethylnaphthalene	46.306	50804	12433	667.8	649.8
156	26DMN	2,6-Dimethylnaphthalene	47.177	778905	105519	10238.4	5514.9
156	27DMN	2,7-Dimethylnaphthalene	47.334	755526	127201	9931.1	6648.1
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.380	1707845	197031	22449.0	10297.8
156	16DMN	1,6-Dimethylnaphthalene	48.624	1253281	201191	16473.9	10515.2
156	23DMN	2,3-Dimethylnaphthalene	49.756	154218	29529	2027.1	1543.3
156	14DMN	1,4-Dimethylnaphthalene	49.861	552765	74201	7265.9	3878.1
156	15DMN	1,5-Dimethylnaphthalene	49.966	183678	45585	2414.4	2382.5
156	12DMN	1,2-Dimethylnaphthalene	50.889	229400	36912	3015.4	1929.2
161	MTTC8	8-Me-MTTChroman					
168	2MBP	2-Methylbiphenyl	46.707	23082	3556	303.4	185.9
168	DPM	Diphenylmethane	48.955	22639	3898	297.6	203.7
168	3MBP	3-Methylbiphenyl	53.433	1229015	184305	16155.0	9632.7
168	4MBP	4-Methylbiphenyl	54.061	374011	63075	4916.2	3296.6
168	DBF	Dibenzofuran	55.490	384065	59506	5048.4	3110.1
170	BB_EMN	Ethyl-methyl-Naphthalene	55.246	283835	37179	3730.9	1943.2
170	AB_EMN	Ethyl-methyl-Naphthalene	56.448	116717	17455	1534.2	912.3
170	137TMN	1,3,7-Trimethylnaphthalene	56.919	627835	95301	8252.7	4980.9
170	136TMN	1,3,6-Trimethylnaphthalene	57.302	829656	134477	10905.5	7028.4
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.365	646754	93553	8501.3	4889.5
170	236TMN	2,3,6-Trimethylnaphthalene	58.627	632391	113033	8312.5	5907.6
170	127TMN	1,2,7-Trimethylnaphthalene	59.341	152896	25102	2009.8	1312.0
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.533	729057	105766	9583.2	5527.8
170	124TMN	1,2,4-Trimethylnaphthalene	60.425	72832	12683	957.4	662.9
170	125TMN	1,2,5-Trimethylnaphthalene	60.895	457330	79949	6011.4	4178.5
178	PHEN	Phenanthrene	70.394	1139567	232614	14979.2	12157.5
184	1357	1,3,5,7-Tetramethylnaphthalene	64.834	158844	28283	2087.9	1478.2
184	1367	1,3,6,7-Tetramethylnaphthalene	65.984	254380	52368	3343.7	2737.0
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.751	181122	32683	2380.8	1708.2
184	1257	1,2,5,7-Tetramethylnaphthalene	66.925	132586	27435	1742.8	1433.9
184	2367	2,3,6,7-Tetramethylnaphthalene	67.291	57208	11641	752.0	608.4
184	1267	1,2,6,7-Tetramethylnaphthalene	67.727	100119	20320	1316.0	1062.0
184	1237	1,2,3,7-Tetramethylnaphthalene	67.918	35474	8058	466.3	421.2
184	1236	1,2,3,6-Tetramethylnaphthalene	68.181	72619	15321	954.6	800.7
184	1256	1,2,5,6-Tetramethylnaphthalene	68.913	283561	57503	3727.3	3005.4
184	DBT	Dibenzothiophene	69.104	40716	7556	535.2	394.9
191	BH32	C32 Benzohopane	115.870	1560	515	20.5	26.9
191	BH33	C33 Benzohopane	116.846	1393	400	18.3	20.9
191	BH34	C34 Benzohopane	117.718	708	198	9.3	10.3
191	BH35	C35 Benzohopane					
192	3MP	3-Methylphenanthrene	75.318	393144	87558	5167.7	4576.2
192	2MP	2-Methylphenanthrene	75.492	439141	98790	5772.3	5163.2
192	9MP	9-Methylphenanthrene	76.189	514526	112019	6763.3	5854.7
192	1MP	1-Methylphenanthrene	76.381	359776	78699	4729.1	4113.2

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M1040828.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene	66.350	60346	11275	793.2	589.3
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene	73.192	23122	5226	303.9	273.1
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene	73.505	17778	4179	233.7	218.4
198	4MDBT	4 Methyl Dibenzothiophene	73.645	63447	14391	834.0	752.1
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.429	53101	8352	698.0	436.5
198	1MDBT	1 Methyl Dibenzothiophene	75.231	66293	15154	871.4	792.0
206	36DMP	3,6-Dimethylphenanthrene	79.535	73818	15880	970.3	830.0
206	26DMP	2,6-Dimethylphenanthrene	79.796	130926	29494	1721.0	1541.5
206	27DMP	2,7-Dimethylphenanthrene	79.901	67994	16967	893.8	886.8
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.406	385441	70408	5066.5	3679.9
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.615	187069	32446	2459.0	1695.8
206	17DMP	1,7-Dimethylphenanthrene	80.755	147786	34899	1942.6	1824.0
206	23DMP	2,3-Dimethylphenanthrene	81.034	76954	17090	1011.5	893.2
206	19DMP	1,9-Dimethylphenanthrene	81.138	86807	20212	1141.0	1056.4
206	18DMP	1,8-Dimethylphenanthrene	81.556	33428	7736	439.4	404.3
206	12DMP	1,2-Dimethylphenanthrene	82.062	23249	5789	305.6	302.6
206	9_10DMP	9,10-Dimethylphenanthrene	82.707	6812	1745	89.5	91.2
212	DMDBT	Dimethyldibenzothiophene	77.635	217108	9553	2853.8	499.3
219	RET	Retene	86.349	215479	53185	2832.4	2779.7
226	TMDBT	Trimethyldibenzothiophene	81.713	143709	5879	1889.0	307.3
231	231A20	C20 Triaromatic Steroid	92.382	12222	2402	160.7	125.5
231	231B21	C21 Triaromatic	94.874	6226	1354	81.8	70.8
231	231C26	C26 20S Triaromatic	104.016	2853	679	37.5	35.5
231	231D26	C27 20S & C26 20R Triaromatic	105.620	8147	1789	107.1	93.5
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic	106.928	6630	1115	87.1	58.3
231	231F27	C27 20R Triaromatic	107.555	4239	808	55.7	42.2
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	109.159	5961	1308	78.4	68.4
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic					
245	C3S	C27 20S 3-Methyl Triaromatic Steroid	106.701	627	140	8.2	7.3
245	C4S	C27 20S 4-Methyl Triaromatic Steroid	107.311	1184	305	15.6	15.9
245	E2S	C28 20S 2-Methyl Triaromatic Steroid	107.869	248	57	3.3	3.0
245	E3SC3R	C28 20S 3-Methyl & C27 20R 3-Methyl TAS	108.200	2152	340	28.3	17.8
245	E4SC4R	C28 20S 4-Methyl & C27 20R 4-Methyl TAS	108.810	4133	672	54.3	35.1
245	S2S	C29 20S 2-Methyl Triaromatic Steroid	109.037	455	75	6.0	3.9
245	DA	Triaromatic Dinosteroid a	109.229	264	60	3.5	3.1
245	S3S	C29 20S 3-Methyl Triaromatic Steroid	109.385	1919	237	25.2	12.4
245	DB	Triaromatic Dinosteroid b	109.839	895	196	11.8	10.2
245	S4SE2R	C29 20S 4-Methyl & C28 20R 2-Methyl TAS	110.013	2215	338	29.1	17.7
245	E3R	C28 20R 3-Methyl Triaromatic Steroid	110.152	1381	219	18.2	11.4
245	E4R	C28 20R 4-Methyl Triaromatic Steroid	110.745	2254	421	29.6	22.0
245	DC	Triaromatic Dinosteroid c	110.919	969	202	12.7	10.6
245	DD	Triaromatic Dinosteroid d	111.042	814	190	10.7	9.9

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M1040828.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
245	S2R	C29 20R 2-Methyl Triaromatic Steroid	111.460	339	82	4.5	4.3
245	S3R	C29 20R 3-Methyl Triaromatic Steroid	111.669	1391	294	18.3	15.4
245	DE	Triaromatic Dinosteroid e	111.809	750	128	9.9	6.7
245	S4R	C29 20R 4-Methyl Triaromatic Steroid	112.244	1394	279	18.3	14.6
245	DF	Triaromatic Dinosteroid f	112.366	1272	291	16.7	15.2
253	S253A	C21 Ring-C Monoaromatic Steroid	84.641	2274	466	29.9	24.4
253	S253B	C22 Monoaromatic steroid	87.098	2470	401	32.5	21.0
253	S253C	C27 Reg 5β(H),10β(CH3) 20S	97.088	232	74	3.1	3.9
253	S253D	C27 Dia 10β(H),5β(CH3) 20S	97.192	695	182	9.1	9.5
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R	98.674	2584	545	34.0	28.5
253	S253F	C27 Reg 5α(H),10β(CH3) 20S	98.796	4521	813	59.4	42.5
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S	99.197	3545	492	46.6	25.7
253	S253H	C27 Reg 5α(H),10β(CH3) 20R	100.460	4976	1007	65.4	52.6
253	S253I	C28 Reg 5α(H),10β(CH3) 20S	100.634	1747	219	23.0	11.4
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R	100.809	1806	311	23.7	16.3
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S	100.948	4060	769	53.4	40.2
253	S253L	C29 Reg 5α(H),10β(CH3) 20S					
253	S253M	C28 Reg 5α(H),10β(CH3) 20R	102.552	1492	273	19.6	14.3
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R	102.639	3178	639	41.8	33.4
253	S253O	C29 Reg 5α(H),10β(CH3) 20R	104.260	1117	223	14.7	11.7

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134516**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**1625 - FT**	**Lab ID:**	**CP273046**
Sampling Point:		**File Name:**	**M1040828.D**

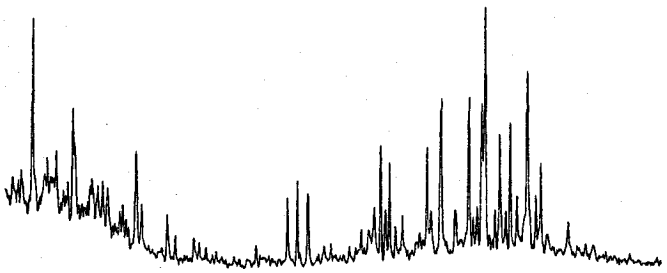
Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.40	0.40
TAS #1 20/20+27	0.74	0.75
TAS #2 21/21+28	0.51	0.51
%26TAS	21.9	24.3
%27TAS	32.5	28.9
%28TAS	45.7	46.8
%29TAS		
C28/C26 20S TAS	2.32	1.64
C28/C27 20R TAS	1.41	1.62
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS	3.00	2.46
%27 MAS	43.4	47.3
%28 MAS	28.7	23.3
%29 MAS	27.9	29.4
(C21+C22)/Σ MAS	0.14	0.14
TAS/(MAS+TAS)	0.57	0.60
TA28/(TA28+MA29)	0.60	0.60
Triaromatic Methylsteroids m/z 245		
Dinosteroid Index	0.20	0.24
C4/C3+C4 Mester	0.59	0.61
Phenanthrenes and Naphthalenes		
MPI-1	0.62	0.66
MPI-2	0.65	0.70
Rc(a) if Ro < 1.3 (Ro%)	0.74	0.77
Rc(b) if Ro > 1.3 (Ro%)	1.93	1.90
DNR-1	8.35	5.11
DNR-2	2.17	2.24
TNR1	0.98	1.21
TDE-1	6.28	6.30
TDE-2	0.21	0.24
MDR	0.96	0.95
Rm (Ro%)	0.61	0.61
MDR23	1.30	1.11
MDR1	1.63	2.01
DBT/Phenanthrene	0.04	0.03

BASELINE DGSI ANALYTICAL LABORATORIES

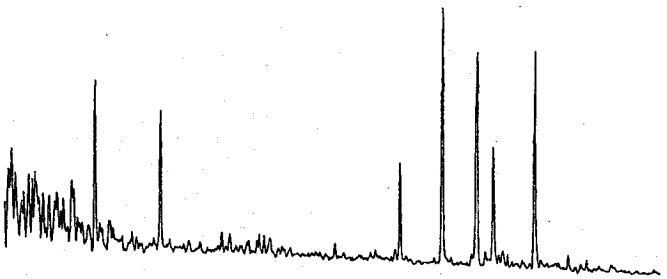
AROMATIC GCMS

Company:	CONOCOPHILLIPS	**Client ID:**	US134514
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:	NORTH SLOPE	**Lab ID:**	CP273044
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	OUMALIK 1	**Geologic Age:**	
Latitude:	69.8416	**Top Depth:**	989 FT
Longitude:	-155.971	**Bottom Depth:**	FT

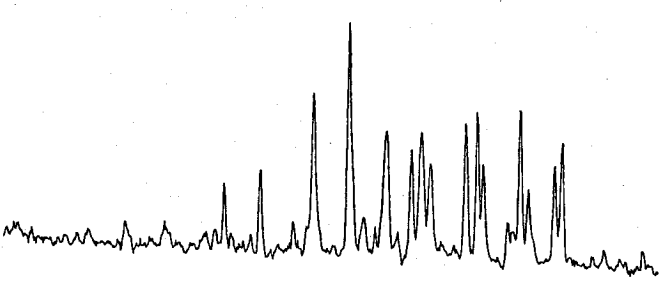
m/z 253: Monoaromatic steroids M1040827.D



m/z 231: Triaromatic steroids M1040827.D



m/z 245 Triaromatic Methylsteroids M1040827.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.23	M	1.0 (1.3%)
TAS #1 20/20+27	0.54	M	
TAS #2 21/21+28	0.38	M	
%26 TAS	19.0	D	
%27 TAS	30.9	D	
%28 TAS	47.1	D	
%29 TAS	3.0	D	
C28/C26 20S TAS	3.14		
C28/C27 20R TAS	1.53		
Dia/Regular C27 MAS	1.66		
%27 MAS	23.9	D	
%28 MAS	35.0	D	
%29 MAS	41.1	D	
(C21+C22)/Σ MAS	0.15	M	1.0 (1.3%)
TAS/(MAS+TAS)	0.61	M	
TA28/(TA28+MA29)	0.63	M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index	0.24	A	
C4/C3+C4 Mester	0.48	A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.76	M	
Rc(a) if Ro < 1.3 (Ro%)	0.83	M	
Rc(b) if Ro > 1.3 (Ro%)	1.84	M	
MPI-2	0.72	M	
DNR-1	2.20	M	
DNR-2	1.41	M	
TNR1	0.57	M	
TDE-1	2.45	M	
TDE-2	0.53	M	
MDR	0.20	M	
Rm (Ró%)	0.46	M	
MDR23	1.91	M	
MDR1	4.95	M	
DBT/Phenanthrene	0.01	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:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M1040827.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)	75.110	16000	3780	300.0	300.0
92	16AB	C16 Alkyl Benzene					
92	17AB	C17 Alkyl Benzene					
92	18AB	C18 Alkyl Benzene					
92	1THIO92	Dimethyl dibenzothiophene 1					
92	2THIO92	Dimethyl dibenzothiophene 2					
92	19AB	C19 Alkyl Benzene					
92	20AB	C20 Alkyl Benzene					
92	21AB	C21 Alkyl Benzene					
92	22AB	C22 Alkyl Benzene					
92	23AB	C23 Alkyl Benzene					
92	PHYBz	Phytanyl Benzene					
92	24AB	C24 Alkyl Benzene					
92	25AB	C25 Alkyl Benzene					
92	26AB	C26 Alkyl Benzene					
106	16ATM	C16 Alkyl Toluene (meta)					
106	16ATO	C16 Alkyl Toluene (ortho)					
106	17ATM	C17 Alkyl Toluene (meta)					
106	17ATO	C17 Alkyl Toluene (ortho)					
106	18ATM	C18 Alkyl Toluene (meta)					
106	18ATO	C18 Alkyl Toluene (ortho)					
106	1THIO106	Dimethyl dibenzothiophene 1					
106	2THIO106	Dimethyl dibenzothiophene 2					
106	19ATM	C19 Alkyl Toluene (meta)					
106	19ATO	C19 Alkyl Toluene (ortho)					
106	20ATM	C20 Alkyl Toluene (meta)					
106	20ATO	C20 Alkyl Toluene (ortho)					
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					
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	60.931	662	107	12.4	8.5
134	16AI	C16 Aryl Isoprenoids	66.141	1304	206	24.5	16.3
134	17AI	C17 Aryl Isoprenoids	70.812	942	162	17.7	12.9
134	18AI	C18 Aryl Isoprenoids	74.953	3834	828	71.9	65.7
134	19AI	C19 Aryl Isoprenoids	77.253	8382	1360	157.2	107.9
134	20AI	C20 Aryl Isoprenoids	81.070	3693	956	69.2	75.9
134	21AI	C21 Aryl Isoprenoids	83.893	3467	845	65.0	67.1
134	22AI	C22 Aryl Isoprenoids					
134	ISOR	Isorenieratane					

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M1040827.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene	38.013	5244	861	98.3	68.3
142	1MN	1-Methylnaphthalene	39.250	3528	573	66.2	45.5
149	MTTC578	5,7,8,-triMe-MTTChroman					
156	2EN	2-Ethylnaphthalene	46.221	776	119	14.6	9.4
156	1EN	1-Ethylnaphthalene	46.291	519	103	9.7	8.2
156	26DMN	2,6-Dimethylnaphthalene	47.127	3089	519	57.9	41.2
156	27DMN	2,7-Dimethylnaphthalene	47.284	3143	514	58.9	40.8
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.260	7710	1045	144.6	82.9
156	16DMN	1,6-Dimethylnaphthalene	48.521	5182	847	97.2	67.2
156	23DMN	2,3-Dimethylnaphthalene	49.706	2196	357	41.2	28.3
156	14DMN	1,4-Dimethylnaphthalene	49.793	2215	396	41.5	31.4
156	15DMN	1,5-Dimethylnaphthalene	49.915	2834	437	53.1	34.7
156	12DMN	1,2-Dimethylnaphthalene	50.857	2084	329	39.1	26.1
161	MTTC8	8-Me-MTTChroman					
168	2MBP	2-Methylbiphenyl	46.692	691	121	13.0	9.6
168	DPM	Diphenylmethane	48.905	327	48	6.1	3.8
168	3MBP	3-Methylbiphenyl	53.366	3960	628	74.3	49.8
168	4MBP	4-Methylbiphenyl	54.028	1930	303	36.2	24.0
168	DBF	Dibenzofuran	55.457	2386	357	44.7	28.3
170	BB_EMN	Ethyl-methyl-Naphthalene	55.213	2469	323	46.3	25.6
170	AB_EMN	Ethyl-methyl-Naphthalene	56.416	1602	240	30.0	19.0
170	137TMN	1,3,7-Trimethylnaphthalene	56.869	7112	1179	133.4	93.6
170	136TMN	1,3,6-Trimethylnaphthalene	57.235	8071	1326	151.3	105.2
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.298	12106	1885	227.0	149.6
170	236TMN	2,3,6-Trimethylnaphthalene	58.577	6923	1208	129.8	95.9
170	127TMN	1,2,7-Trimethylnaphthalene	59.308	4190	727	78.6	57.7
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.483	7947	1216	149.0	96.5
170	124TMN	1,2,4-Trimethylnaphthalene	60.408	5158	901	96.7	71.5
170	125TMN	1,2,5-Trimethylnaphthalene	60.861	12657	2316	237.3	183.8
178	PHEN	Phenanthrene	70.359	271768	55712	5095.7	4421.6
184	1357	1,3,5,7-Tetramethylnaphthalene	64.817	22617	4151	424.1	329.4
184	1367	1,3,6,7-Tetramethylnaphthalene	65.967	13688	2903	256.7	230.4
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.716	20737	3918	388.8	311.0
184	1257	1,2,5,7-Tetramethylnaphthalene	66.908	14893	3072	279.2	243.8
184	2367	2,3,6,7-Tetramethylnaphthalene	67.274	11432	2450	214.4	194.4
184	1267	1,2,6,7-Tetramethylnaphthalene	67.710	11044	2283	207.1	181.2
184	1237	1,2,3,7-Tetramethylnaphthalene	67.901	6541	1384	122.6	109.8
184	1236	1,2,3,6-Tetramethylnaphthalene	68.164	9900	2094	185.6	166.2
184	1256	1,2,5,6-Tetramethylnaphthalene	68.878	49702	10592	931.9	840.6
184	DBT	Dibenzothiophene	69.070	3289	563	61.7	44.7
191	BH32	C32 Benzohopane	115.889	2405	908	45.1	72.1
191	BH33	C33 Benzohopane	116.865	1778	548	33.3	43.5
191	BH34	C34 Benzohopane	117.736	705	255	13.2	20.2
191	BH35	C35 Benzohopane	118.852	446	129	8.4	10.2
192	3MP	3-Methylphenanthrene	75.301	161373	34230	3025.7	2716.7
192	2MP	2-Methylphenanthrene	75.476	143025	30443	2681.7	2416.1
192	9MP	9-Methylphenanthrene	76.173	193699	40783	3631.9	3236.7
192	1MP	1-Methylphenanthrene	76.364	133658	30223	2506.1	2398.7

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M1040827.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene	66.333	2008	378	37.7	30.0
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene	73.175	5357	1172	100.4	93.0
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene	73.489	5740	1202	107.6	95.4
198	4MDBT	4 Methyl Dibenzothiophene	73.628	3232	717	60.6	56.9
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.482	6291	1121	118.0	89.0
198	1MDBT	1 Methyl Dibenzothiophene	75.214	16275	3557	305.2	282.3
206	36DMP	3,6-Dimethylphenanthrene	79.536	43993	8964	824.9	711.4
206	26DMP	2,6-Dimethylphenanthrene	79.798	78896	17868	1479.3	1418.1
206	27DMP	2,7-Dimethylphenanthrene	79.902	39939	9303	748.9	738.3
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.425	250467	47342	4696.3	3757.3
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.617	110400	19366	2070.0	1537.0
206	17DMP	1,7-Dimethylphenanthrene	80.773	86740	19896	1626.4	1579.0
206	23DMP	2,3-Dimethylphenanthrene	81.035	45063	10019	844.9	795.2
206	19DMP	1,9-Dimethylphenanthrene	81.157	50919	11454	954.7	909.0
206	18DMP	1,8-Dimethylphenanthrene	81.575	18234	4037	341.9	320.4
206	12DMP	1,2-Dimethylphenanthrene	82.063	13387	3045	251.0	241.7
206	9_10DMP	9,10-Dimethylphenanthrene	82.708	2820	687	52.9	54.5
212	DMDBT	Dimethyldibenzothiophene	77.637	67695	2362	1269.3	187.5
219	RET	Retene	86.350	139693	33252	2619.2	2639.0
226	TMDBT	Trimethyldibenzothiophene	81.732	57475	2243	1077.7	178.0
231	231A20	C20 Triaromatic Steroid	92.400	10450	2335	195.9	185.3
231	231B21	C21 Triaromatic	94.892	8322	1927	156.0	152.9
231	231C26	C26 20S Triaromatic	104.035	5487	1355	102.9	107.5
231	231D26	C27 20S & C26 20R Triaromatic	105.621	15846	3492	297.1	277.1
231	TADMD1	C28 23,24-Cholestane Triaromatic					
231	TADMD2	C28 23,24-Cholestane Triaromatic					
231	231E28	C28 20S Triaromatic	106.946	17250	2921	323.4	231.8
231	231F27	C27 20R Triaromatic	107.573	8910	1621	167.1	128.7
231	TADMD3	C28 23,24-Cholestane Triaromatic					
231	C29TA1	C29 Triaromatic	107.957	1141	222	21.4	17.6
231	C29TA2	C29 Triaromatic	108.131	622	181	11.7	14.4
231	TADMD4	C28 23,24-Cholestane Triaromatic					
231	231G28	C28 20R Triaromatic	109.177	13601	2967	255.0	235.5
231	TADMD5	C28 23,24-Cholestane Triaromatic					
231	C29TA3	C29 Triaromatic	110.467	859	203	16.1	16.1
245	C3S	C27 20S 3-Methyl Triaromatic Steroid	106.702	1025	255	19.2	20.2
245	C4S	C27 20S 4-Methyl Triaromatic Steroid	107.329	1392	327	26.1	26.0
245	E2S	C28 20S 2-Methyl Triaromatic Steroid	107.870	466	122	8.7	9.7
245	E3SC3R	C28 20S 3-Methyl & C27 20R 3-Methyl TAS	108.218	3544	596	66.5	47.3
245	E4SC4R	C28 20S 4-Methyl & C27 20R 4-Methyl TAS	108.811	4526	859	84.9	68.2
245	S2S	C29 20S 2-Methyl Triaromatic Steroid	109.055	880	142	16.5	11.3
245	DA	Triaromatic Dinosteroid a	109.247	347	107	6.5	8.5
245	S3S	C29 20S 3-Methyl Triaromatic Steroid	109.439	3381	463	63.4	36.7
245	DB	Triaromatic Dinosteroid b	109.840	1678	398	31.5	31.6
245	S4SE2R	C29 20S 4-Methyl & C28 20R 2-Methyl TAS	110.014	2973	463	55.7	36.7
245	E3R	C28 20R 3-Methyl Triaromatic Steroid	110.153	2093	346	39.2	27.5
245	E4R	C28 20R 4-Methyl Triaromatic Steroid	110.746	2397	503	44.9	39.9
245	DC	Triaromatic Dinosteroid c	110.938	2247	544	42.1	43.2
245	DD	Triaromatic Dinosteroid d	111.042	1505	351	28.2	27.9

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M1040827.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
245	S2R	C29 20R 2-Methyl Triaromatic Steroid	111.461	714	156	13.4	12.4
245	S3R	C29 20R 3-Methyl Triaromatic Steroid	111.670	2774	568	52.0	45.1
245	DE	Triaromatic Dinosteroid e	111.809	1372	278	25.7	22.1
245	S4R	C29 20R 4-Methyl Triaromatic Steroid	112.263	1650	362	30.9	28.7
245	DF	Triaromatic Dinosteroid f	112.385	1868	447	35.0	35.5
253	S253A	C21 Ring-C Monoaromatic Steroid	84.660	3892	796	73.0	63.2
253	S253B	C22 Monoaromatic steroid	87.117	3796	662	71.2	52.5
253	S253C	C27 Reg 5β(H),10β(CH3) 20S	97.053	1747	354	32.8	28.1
253	S253D	C27 Dia 10β(H),5β(CH3) 20S	97.210	2900	682	54.4	54.1
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R	98.674	3341	750	62.6	59.5
253	S253F	C27 Reg 5α(H),10β(CH3) 20S	98.814	1590	306	29.8	24.3
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S	99.215	6485	1081	121.6	85.8
253	S253H	C27 Reg 5α(H),10β(CH3) 20R	100.496	991	232	18.6	18.4
253	S253I	C28 Reg 5α(H),10β(CH3) 20S	100.635	1481	301	27.8	23.9
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R	100.827	6087	1015	114.1	80.6
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S	100.967	8172	1687	153.2	133.9
253	S253L	C29 Reg 5α(H),10β(CH3) 20S	102.257	1590	369	29.8	29.3
253	S253M	C28 Reg 5α(H),10β(CH3) 20R	102.570	1395	231	26.2	18.3
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R	102.640	7120	1234	133.5	97.9
253	S253O	C29 Reg 5α(H),10β(CH3) 20R	104.279	1257	234	23.6	18.6

GMC DATA REPORT 3 4 3

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134514**
Well Name:	**OUMALIK 1**	**Project #:**	**04-180-A**
Depth:	**989 - FT**	**Lab ID:**	**CP273044**
Sampling Point:		**File Name:**	**M1040827.D**

Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.23	0.25
TAS #1 20/20+27	0.54	0.59
TAS #2 21/21+28	0.38	0.39
%26TAS	19.0	22.0
%27TAS	30.9	26.4
%28TAS	47.1	48.3
%29TAS	3.0	3.3
C28/C26 20S TAS	3.14	2.16
C28/C27 20R TAS	1.53	1.83
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS	1.66	1.93
%27 MAS	23.9	27.4
%28 MAS	35.0	31.0
%29 MAS	41.1	41.6
(C21+C22)/Σ MAS	0.15	0.15
TAS/(MAS+TAS)	0.61	0.63
TA28/(TA28+MA29)	0.63	0.63
Triaromatic Methylsteroids m/z 245		
Dinosteroid Index	0.24	0.29
C4/C3+C4 Mester	0.48	0.50
Phenanthrenes and Naphthalenes		
MPI-1	0.76	0.77
MPI-2	0.72	0.72
Rc(a) if Ro < 1.3 (Ro%)	0.83	0.83
Rc(b) if Ro > 1.3 (Ro%)	1.84	1.84
DNR-1	2.20	2.36
DNR-2	1.41	1.37
TNR1	0.57	0.64
TDE-1	2.45	2.57
TDE-2	0.53	0.60
MDR	0.20	0.20
Rm (Ro%)	0.46	0.46
MDR23	1.91	1.99
MDR1	4.95	6.32
DBT/Phenanthrene	0.01	0.01

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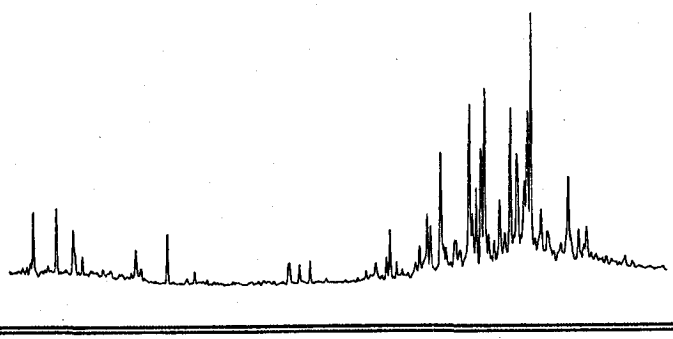
BASELINE DGSI
ANALYTICAL LABORATORIES

AROMATIC GCMS

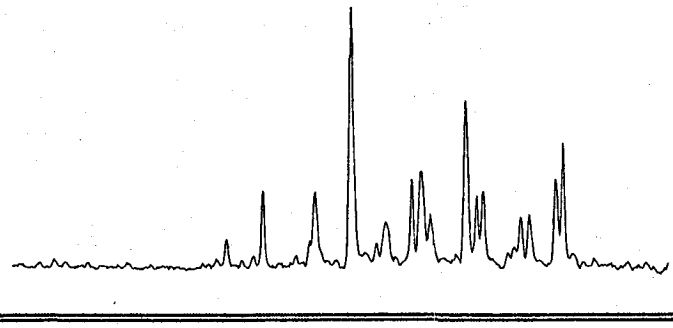
Company:	CONOCOPHILLIPS	**Client ID:**	US134004
Country:	UNITED STATES	**Project #:**	04-180-A
Basin:		**Lab ID:**	CP272549
Lease:		**Sample Type:**	CORE
Block:		**Sampling Point:**	
Field:		**Formation:**	
Well Name:	EAST TOPAGORUK-1	**Geologic Age:**	
Latitude:		**Top Depth:**	2249 FT
Longitude:		**Bottom Depth:**	FT

m/z 253: Monoaromatic steroids M1040545.D



m/z 231: Triaromatic steroids M1040545.D

m/z 245 Triaromatic Methylsteroids M1040545.D



RATIOS (on Areas)[1]		Appl[2]	TEV[3]
Mono- (MAS) and Triaromatic Steroids (TAS)			
(C20+C21)/Σ TAS	0.34	M	1.0 (1.3%)
TAS #1 20/20+27	0.67	M	
TAS #2 21/21+28	0.48	M	
%26 TAS	20.7	D	
%27 TAS	34.4	D	
%28 TAS	39.1	D	
%29 TAS	5.8	D	
C28/C26 20S TAS	2.24		
C28/C27 20R TAS	1.14		
Dia/Regular C27 MAS	1.93		
%27 MAS	17.0	D	
%28 MAS	34.4	D	
%29 MAS	48.6	D	
(C21+C22)/Σ MAS	0.06	M	1.0 (1.3%)
TAS/(MAS+TAS)	0.35	M	
TA28/(TA28+MA29)	0.25	M	1.0 (0.8%)
Triaromatic Methylsteroids			
Dinosteroid Index	0.27	A	
C4/C3+C4 Mester	0.69	A	
Phenanthrenes, Naphthalenes, and Dibenzothiophenes			
MPI-1	0.39	M	
Rc(a) if Ro < 1.3 (Ro%)	0.60	M	
Rc(b) if Ro > 1.3 (Ro%)	2.07	M	
MPI-2	0.44	M	
DNR-1	8.88	M	
DNR-2	3.26	M	
TNR1	1.09	M	
TDE-1	6.67	M	
TDE-2	0.30	M	
MDR	1.12	M	
Rm (Ro%)	0.63	M	
MDR23	0.55	M	
MDR1	0.64	M	
DBT/Phenanthrene	0.12	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:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M1040545.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
230	OTP	*Ortho-terphenyl* (internal standard)	75.021	26739	7143	300.0	300.0
92	16AB	C16 Alkyl Benzene	66.735	30802	6809	345.6	286.0
92	17AB	C17 Alkyl Benzene	71.580	15540	3684	174.4	154.7
92	18AB	C18 Alkyl Benzene	75.770	7502	1861	84.2	78.2
92	1THIO92	Dimethyl dibenzothiophene 1					
92	2THIO92	Dimethyl dibenzothiophene 2					
92	19AB	C19 Alkyl Benzene	79.517	2802	775	31.4	32.5
92	20AB	C20 Alkyl Benzene	82.950	1501	380	16.8	16.0
92	21AB	C21 Alkyl Benzene	86.139	1126	322	12.6	13.5
92	22AB	C22 Alkyl Benzene	89.141	608	149	6.8	6.3
92	23AB	C23 Alkyl Benzene	91.999	538	124	6.0	5.2
92	PHYBz	Phytanyl Benzene	93.882	342	42	3.8	1.8
92	24AB	C24 Alkyl Benzene	94.701	317	78	3.6	3.3
92	25AB	C25 Alkyl Benzene	97.315	258	53	2.9	2.2
92	26AB	C26 Alkyl Benzene	99.790	195	41	2.2	1.7
106	16ATM	C16 Alkyl Toluene (meta)	66.003	28811	6674	323.2	280.3
106	16ATO	C16 Alkyl Toluene (ortho)	66.944	20580	4296	230.9	180.4
106	17ATM	C17 Alkyl Toluene (meta)	70.883	21107	4783	236.8	200.9
106	17ATO	C17 Alkyl Toluene (ortho)	71.737	11159	2687	125.2	112.9
106	18ATM	C18 Alkyl Toluene (meta)	75.126	7164	1709	80.4	71.8
106	18ATO	C18 Alkyl Toluene (ortho)	75.910	5027	1241	56.4	52.1
106	1THIO106	Dimethyl dibenzothiophene 1					
106	2THIO106	Dimethyl dibenzothiophene 2					
106	19ATM	C19 Alkyl Toluene (meta)	78.890	2842	738	31.9	31.0
106	19ATO	C19 Alkyl Toluene (ortho)	79.657	1988	523	22.3	22.0
106	20ATM	C20 Alkyl Toluene (meta)	82.340	1809	415	20.3	17.4
106	20ATO	C20 Alkyl Toluene (ortho)	83.072	1218	303	13.7	12.7
106	21ATM	C21 Alkyl Toluene (meta)	85.582	1356	242	15.2	10.2
106	21ATO	C21 Alkyl Toluene (ortho)	86.261	2235	462	25.1	19.4
106	22ATM	C22 Alkyl Toluene (meta)	88.566	1043	167	11.7	7.0
106	22ATO	C22 Alkyl Toluene (ortho)	89.298	1604	268	18.0	11.3
106	23ATM	C23 Alkyl Toluene (meta)	91.424	1098	200	12.3	8.4
106	23ATO	C23 Alkyl Toluene (ortho)	92.139	460	106	5.2	4.5
106	24ATM	C24 Alkyl Toluene (meta)					
106	24ATO	C24 Alkyl Toluene (ortho)					
106	PHYTL	Phytanyl Toluene	95.834	3121	335	35.0	14.1
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	60.862	11034	2008	123.8	84.3
134	16AI	C16 Aryl Isoprenoids	66.055	8791	1767	98.6	74.2
134	17AI	C17 Aryl Isoprenoids	70.709	2268	475	25.4	20.0
134	18AI	C18 Aryl Isoprenoids	74.864	5458	1283	61.2	53.9
134	19AI	C19 Aryl Isoprenoids	77.165	6744	1451	75.7	60.9
134	20AI	C20 Aryl Isoprenoids	80.964	5266	949	59.1	39.9
134	21AI	C21 Aryl Isoprenoids	83.787	2056	514	23.1	21.6
134	22AI	C22 Aryl Isoprenoids	86.697	1565	382	17.6	16.0
134	ISOR	Isorenieratane					

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M1040545.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
142	2MN	2-Methylnaphthalene	37.993	2002323	310619	22465.2	13045.7
142	1MN	1-Methylnaphthalene	39.195	1027938	173369	11533.0	7281.4
149	MTTC578	5,7,8,-triMe-MTTChroman	103.162	10556	1507	118.4	63.3
156	2EN	2-Ethylnaphthalene	46.148	174767	27018	1960.8	1134.7
156	1EN	1-Ethylnaphthalene	46.218	42781	10932	480.0	459.1
156	26DMN	2,6-Dimethylnaphthalene	47.072	617763	95649	6931.0	4017.2
156	27DMN	2,7-Dimethylnaphthalene	47.229	606240	103361	6801.8	4341.1
156	1317DMN	1,3 & 1,7-Dimethylnaphthalenes	48.240	946660	122714	10621.1	5153.9
156	16DMN	1,6-Dimethylnaphthalene	48.484	827510	138934	9284.3	5835.1
156	23DMN	2,3-Dimethylnaphthalene	49.634	79544	16257	892.4	682.8
156	14DMN	1,4-Dimethylnaphthalene	49.738	295607	44097	3316.6	1852.0
156	15DMN	1,5-Dimethylnaphthalene	49.843	137777	28929	1545.8	1215.0
156	12DMN	1,2-Dimethylnaphthalene	50.801	135646	22764	1521.9	956.1
161	MTTC8	8-Me-MTTChroman	98.274	244	47	2.7	2.0
168	2MBP	2-Methylbiphenyl	46.619	25101	4235	281.6	177.9
168	DPM	Diphenylmethane	48.850	16431	2857	184.3	120.0
168	3MBP	3-Methylbiphenyl	53.311	364809	61210	4093.0	2570.8
168	4MBP	4-Methylbiphenyl	53.956	140153	24347	1572.5	1022.6
168	DBF	Dibenzofuran	55.385	153008	24573	1716.7	1032.0
170	BB_EMN	Ethyl-methyl-Naphthalene	55.141	190225	25957	2134.2	1090.2
170	AB_EMN	Ethyl-methyl-Naphthalene	56.343	73183	11932	821.1	501.1
170	137TMN	1,3,7-Trimethylnaphthalene	56.796	220366	37774	2472.4	1586.5
170	136TMN	1,3,6-Trimethylnaphthalene	57.180	333258	57253	3739.0	2404.6
170	146135T	(1,4,6+1,3,5)-Trimethylnaphthalenes	58.243	222417	34373	2495.4	1443.6
170	236TMN	2,3,6-Trimethylnaphthalene	58.504	241668	42539	2711.4	1786.6
170	127TMN	1,2,7-Trimethylnaphthalene	59.236	68621	11919	769.9	500.6
170	167126T	(1,6,7+1,2,6)-Trimethylnaphthalenes	59.428	232430	36088	2607.8	1515.7
170	124TMN	1,2,4-Trimethylnaphthalene	60.322	16946	3143	190.1	132.0
170	125TMN	1,2,5-Trimethylnaphthalene	60.775	112947	20815	1267.2	874.2
178	PHEN	Phenanthrene	70.290	225163	49306	2526.2	2070.8
184	1357	1,3,5,7-Tetramethylnaphthalene	64.748	39921	7013	447.9	294.5
184	1367	1,3,6,7-Tetramethylnaphthalene	65.898	38696	8631	434.2	362.5
184	1247	(1,2,4,7+1,2,4,6+1,4,6,7)-Tetramethylnaphthalenes	66.647	25571	4836	286.9	203.1
184	1257	1,2,5,7-Tetramethylnaphthalene	66.822	22811	4368	255.9	183.5
184	2367	2,3,6,7-Tetramethylnaphthalene	67.205	10778	2348	120.9	98.6
184	1267	1,2,6,7-Tetramethylnaphthalene	67.641	15185	3119	170.4	131.0
184	1237	1,2,3,7-Tetramethylnaphthalene	67.815	5012	986	56.2	41.4
184	1236	1,2,3,6-Tetramethylnaphthalene	68.095	9497	2153	106.6	90.4
184	1256	1,2,5,6-Tetramethylnaphthalene	68.809	23277	5153	261.2	216.4
184	DBT	Dibenzothiophene	69.018	28143	5596	315.8	235.0
191	BH32	C32 Benzohopane	115.923	4488	1409	50.4	59.2
191	BH33	C33 Benzohopane	116.968	3941	1097	44.2	46.1
191	BH34	C34 Benzohopane	117.910	2464	634	27.6	26.6
191	BH35	C35 Benzohopane	119.095	1296	246	14.5	10.3
192	3MP	3-Methylphenanthrene	75.213	37049	8741	415.7	367.1
192	2MP	2-Methylphenanthrene	75.404	48457	11757	543.7	493.8
192	9MP	9-Methylphenanthrene	76.084	72965	16405	818.6	689.0
192	1MP	1-Methylphenanthrene	76.276	34485	7753	386.9	325.6

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M1040545.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
198	CAD	Cadalene	66.247	51305	9626	575.6	404.3
198	12467PMN	1,2,4,6,7-Pentamethylnaphthalene	73.104	3742	919	42.0	38.6
198	12357PMN	1,2,3,5,7-Pentamethylnaphthalene	73.418	2333	575	26.2	24.2
198	4MDBT	4 Methyl Dibenzothiophene	73.557	19996	4484	224.3	188.3
198	23MDBT	2 & 3 Methyl Dibenzothiophenes	74.341	15460	2459	173.5	103.3
198	1MDBT	1 Methyl Dibenzothiophene	75.143	17889	3581	200.7	150.4
206	36DMP	3,6-Dimethylphenanthrene	79.447	20776	4694	233.1	197.1
206	26DMP	2,6-Dimethylphenanthrene	79.709	15734	3733	176.5	156.8
206	27DMP	2,7-Dimethylphenanthrene	79.813	36458	8229	409.0	345.6
206	39DMP	(3,9+3,10+2,10+1,3)-Dimethylphenanthrenes	80.319	119254	25683	1338.0	1078.7
206	29DMP	(2,9+1,6)-Dimethylphenanthrenes	80.528	79925	16709	896.7	701.8
206	17DMP	1,7-Dimethylphenanthrene	80.667	19830	4554	222.5	191.3
206	23DMP	2,3-Dimethylphenanthrene	80.946	17963	3613	201.5	151.7
206	19DMP	1,9-Dimethylphenanthrene	81.051	26618	5617	298.6	235.9
206	18DMP	1,8-Dimethylphenanthrene	81.469	8215	1736	92.2	72.9
206	12DMP	1,2-Dimethylphenanthrene	81.992	2664	630	29.9	26.5
206	9_10DMP	9,10-Dimethylphenanthrene	82.619	8100	1907	90.9	80.1
212	DMDBT	Dimethyldibenzothiophene	77.548	99915	2657	1121.0	111.6
219	RET	Retene	86.244	144781	36971	1624.4	1552.8
226	TMDBT	Trimethyldibenzothiophene	81.643	76198	2031	854.9	85.3
231	231A20	C20 Triaromatic Steroid	92.330	15106	2151	169.5	90.3
231	231B21	C21 Triaromatic	94.770	7759	1241	87.1	52.1
231	231C26	C26 20S Triaromatic	103.912	4482	1041	50.3	43.7
231	231D26	C27 20S & C26 20R Triaromatic	105.516	12482	2781	140.0	116.8
231	TADMD1	C28 23,24-Cholestane Triaromatic	106.073	154	60	1.7	2.5
231	TADMD2	C28 23,24-Cholestane Triaromatic	106.631	738	157	8.3	6.6
231	231E28	C28 20S Triaromatic	106.823	10030	1602	112.5	67.3
231	231F27	C27 20R Triaromatic	107.450	7452	1370	83.6	57.5
231	TADMD3	C28 23,24-Cholestane Triaromatic	107.573	1131	258	12.7	10.8
231	C29TA1	C29 Triaromatic	107.817	1631	270	18.3	11.3
231	C29TA2	C29 Triaromatic	108.008	714	188	8.0	7.9
231	TADMD4	C28 23,24-Cholestane Triaromatic	108.845	972	276	10.9	11.6
231	231G28	C28 20R Triaromatic	109.054	8485	1747	95.2	73.4
231	TADMD5	C28 23,24-Cholestane Triaromatic	109.124	650	327	7.3	13.7
231	C29TA3	C29 Triaromatic	110.344	1266	306	14.2	12.9
245	C3S	C27 20S 3-Methyl Triaromatic Steroid	106.596	979	220	11.0	9.2
245	C4S	C27 20S 4-Methyl Triaromatic Steroid	107.206	2471	570	27.7	23.9
245	E2S	C28 20S 2-Methyl Triaromatic Steroid	107.764	389	92	4.4	3.9
245	E3SC3R	C28 20S 3-Methyl & C27 20R 3-Methyl TAS	108.095	3649	558	40.9	23.4
245	E4SC4R	C28 20S 4-Methyl & C27 20R 4-Methyl TAS	108.688	10354	1913	116.2	80.3
245	S2S	C29 20S 2-Methyl Triaromatic Steroid	108.915	779	114	8.7	4.8
245	DA	Triaromatic Dinosteroid a	109.124	811	182	9.1	7.6
245	S3S	C29 20S 3-Methyl Triaromatic Steroid	109.281	2863	338	32.1	14.2
245	DB	Triaromatic Dinosteroid b	109.717	2966	646	33.3	27.1
245	S4SE2R	C29 20S 4-Methyl & C28 20R 2-Methyl TAS	109.874	4684	706	52.6	29.7
245	E3R	C28 20R 3-Methyl Triaromatic Steroid	110.030	2644	391	29.7	16.4
245	E4R	C28 20R 4-Methyl Triaromatic Steroid	110.623	6554	1225	73.5	51.4
245	DC	Triaromatic Dinosteroid c	110.815	2520	525	28.3	22.1
245	DD	Triaromatic Dinosteroid d	110.920	2551	559	28.6	23.5

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Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M1040545.D**

Ion	Peak Label	Compound Name	Ret. Time	Area	Height	ppm (Area)	ppm (Hght)
245	S2R	C29 20R 2-Methyl Triaromatic Steroid	111.338	472	110	5.3	4.6
245	S3R	C29 20R 3-Methyl Triaromatic Steroid	111.547	1875	368	21.0	15.5
245	DE	Triaromatic Dinosteroid e	111.687	2120	385	23.8	16.2
245	S4R	C29 20R 4-Methyl Triaromatic Steroid	112.122	3169	649	35.6	27.3
245	DF	Triaromatic Dinosteroid f	112.244	3884	907	43.6	38.1
253	S253A	C21 Ring-C Monoaromatic Steroid	84.554	3880	805	43.5	33.8
253	S253B	C22 Monoaromatic steroid	87.011	3004	557	33.7	23.4
253	S253C	C27 Reg 5β(H),10β(CH3) 20S	96.949	1756	411	19.7	17.3
253	S253D	C27 Dia 10β(H),5β(CH3) 20S	97.089	3385	896	38.0	37.6
253	S253E	C27 Dia10βH,5βCH3 20R+Reg5βH,10βCH3 20R	98.553	5114	1067	57.4	44.8
253	S253F	C27 Reg 5α(H),10β(CH3) 20S	98.710	4369	856	49.0	36.0
253	S253G	C28 Dia 10αH,5αCH3 20s+Reg5βH,10βCH3 20S	99.093	12388	2177	139.0	91.4
253	S253H	C27 Reg 5α(H),10β(CH3) 20R	100.373	4937	1017	55.4	42.7
253	S253I	C28 Reg 5α(H),10β(CH3) 20S	100.530	7008	1467	78.6	61.6
253	S253J	C28 Dia 10αH,5αCH3 20R+Reg5βH,10βCH3 20R	100.704	10553	2175	118.4	91.3
253	S253K	C29 Dia 10βH,5βCH3 20S+Reg5βH,10βCH3 20S	100.826	16842	3250	189.0	136.5
253	S253L	C29 Reg 5α(H),10β(CH3) 20S	102.116	15289	2009	171.5	84.4
253	S253M	C28 Reg 5α(H),10β(CH3) 20R	102.430	9696	1510	108.8	63.4
253	S253N	C29 Dia 10βH,5βCH3 20R+Reg5βH,10βCH3 20R	102.535	15159	2758	170.1	115.8
253	S253O	C29 Reg 5α(H),10β(CH3) 20R	104.156	8725	1503	97.9	63.1

Company:	**CONOCOPHILLIPS**	**Client ID:**	**US134004**
Well Name:	**EAST TOPAGORUK-1**	**Project #:**	**04-180-A**
Depth:	**2249 - FT**	**Lab ID:**	**CP272549**
Sampling Point:		**File Name:**	**M1040545.D**

Miscellaneous Ratios	By Areas	By Heights
Triaromatic Steroids m/z 231		
(C20+C21)/Σ TAS	0.34	0.28
TAS #1 20/20+27	0.67	0.61
TAS #2 21/21+28	0.48	0.42
%26TAS	20.7	23.3
%27TAS	34.4	30.7
%28TAS	39.1	39.1
%29TAS	5.8	6.9
C28/C26 20S TAS	2.24	1.54
C28/C27 20R TAS	1.14	1.28
Monoaromatic Steroids m/z 253		
Dia/Regular C27 MAS	1.93	2.18
%27 MAS	17.0	20.1
%28 MAS	34.4	34.7
%29 MAS	48.6	45.1
(C21+C22)/Σ MAS	0.06	0.06
TAS/(MAS+TAS)	0.35	0.35
TA28/(TA28+MA29)	0.25	0.26
Triaromatic Methylsteroids m/z 245		
Dinosteroid Index	0.27	0.31
C4/C3+C4 Mester	0.69	0.71
Phenanthrenes and Naphthalenes		
MPI-1	0.39	0.42
MPI-2	0.44	0.48
Rc(a) if Ro < 1.3 (Ro%)	0.60	0.62
Rc(b) if Ro > 1.3 (Ro%)	2.07	2.05
DNR-1	8.88	6.88
DNR-2	3.26	3.30
TNR1	1.09	1.24
TDE-1	6.67	6.62
TDE-2	0.30	0.33
MDR	1.12	1.25
Rm (Ro%)	0.63	0.65
MDR23	0.55	0.44
MDR1	0.64	0.64
DBT/Phenanthrene	0.12	0.11

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BASELINE DGSI
ANALYTICAL LABORATORIES

Total Organic Carbon, Pyrolysis

Company: CONOCOPHILLIPS **Project #: 04-180-A**

Client ID	Lab ID	Sample Type	Depth	Prep	TOC Wt. %	S1 mg/g	S2 mg/g	S3 mg/g	Tmax	HI	OI	S1/ TOC	PI	Verified
US133998	CP272543	CUTTINGS	10880 - 10890 FT	NOPR	1.50	0.42	0.76	0.54	460	51	36	28	0.36	
US133999	CP272544	CUTTINGS	10920 - 10930 FT	NOPR	1.23	0.23	0.45	0.54	436	37	44	19	0.34	
US134000	CP272545	CUTTINGS	10960 - 10970 FT	NOPR	1.34	0.28	0.51	0.37	448	38	28	21	0.36	
US134001	CP272546	CORE	10992 - FT	NOPR	3.42	0.84	0.99	0.80	515	29	23	25	0.46	TOC RE
US134002	CP272547	CUTTINGS	11000 - 11010 FT	NOPR	2.80	0.58	1.25	0.39	493	45	14	21	0.32	TOC RE

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