

# GEOCHEMICAL DATA REPORT

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TITLE

## GEOCHEMICAL DATA REPORT WELL CUTTINGS AND MUD SAMPLES WELL NOCS 6603/5-1S

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This report concerns screening analyses on a number of cuttings and mud samples received from Norske Shell. The well 6603/5-1S was drilled using both water-based mud (WBM) and oil-based mud (OBM). The following samples were provided for analysis:

- 6603/5-1: 103 cuttings samples
- 6603/5-1: 3 mud samples, OBM and WBM

All the cuttings / core samples were lithologically described after cleaning, see Table 1, while the samples analysed (102 for 6603/5-1) are shown in data Table 2 - TOC & Rock Eval data. Selected parameters were plotted against depth for the well, these also having added comments, and are included in this report.

The data from the analyses have been previously sent by e-mail to Norske Shell as they became available (data sendings of 03/2011), and are collated here.

The sample preparations and analyses comprised the following:

- Washing with water to remove mud and any water-soluble contaminants
- Washing with DCM solvent (found to be necessary with all samples)
- Drying of cuttings & mud samples
- Lithological description of cleaned & dried cuttings samples
- Hand picking of relevant lithologies from cuttings
- TOC analysis of cuttings
- Rock Eval pyrolysis analysis of cuttings

Water washing of the samples was performed at 60 °C to remove mud and any water-soluble contaminants, and checked. The water washing was found to be insufficient for both cuttings and core, and hot extraction had to be performed. Following the first washing and extraction, a selection of samples were analysed by thermal extract GC for results, followed by routine TOC & Rock Eval analysis. The results of these analyses are presented here as data tables.

As noted above, a selection of samples were analysed by thermal extraction GC in order to typify the contaminants in the samples, as well as checking the effect of the cleaning. As with previous wells analysed, even rigorous multi- hot extraction (Soxtec) cannot clean the cuttings samples absolutely. However, from the point of view of source-rock assessment (considered to be the main purpose of the analyses due to the dominance of shales in the data set), the degree of cleaning was deemed to be satisfactory in negating or otherwise the source rock potential.

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Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	
2330.00		0001
	85 Ca : w, chk	0001-1L
	15 Sh/Clst: lt gy	0001-2L
2360.00		0002
	100 Sh/Clst: lt gy to brn gy	0002-2L
	tr Ca : w, chk	0002-1L
2390.00		0003
	100 Sh/Clst: lt gy to m gy	0003-1L
2420.00		0004
	100 Sh/Clst: lt gy to m gy	0004-1L
2450.00		0005
	100 Sh/Clst: lt gy to m gy	0005-1L
2480.00		0006
	100 Sh/Clst: lt gy to m gy	0006-1L
2510.00		0007
	100 Sltst : lt gy, s	0007-1L
2530.00		0008
	100 Sltst : lt gy, s	0008-1L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----		-----
Int Cvd	% Lithology description	
-----	-----	
2550.00		0009
	50 Sltst : lt gy, s	0009-1L
	50 S/Sst : lt gy to w	0009-2L
2580.00		0010
	55 Sltst : lt gy, s	0010-1L
	30 S/Sst : lt gy to w	0010-2L
	15 Ca : gy brn, dol	0010-3L
2610.00		0011
	85 S/Sst : lt gy to w, crs, l	0011-2L
	10 Sltst : lt gy, s	0011-1L
	5 Ca : gy brn, dol	0011-3L
2640.00		0012
	75 S/Sst : lt gy to w, crs, l	0012-2L
	25 Sltst : lt gy, s	0012-1L
	tr Ca : gy brn, dol	0012-3L
2670.00		0013
	75 Sh/Clst: lt gy, slt, s	0013-1L
	15 S/Sst : lt gy to w, crs, l	0013-2L
	10 Ca : gy brn, dol	0013-3L
2700.00		0014
	70 Sh/Clst: lt gy, slt	0014-1L
	30 S/Sst : lt gy to w, crs, l	0014-2L
2730.00		0015
	85 Sh/Clst: lt gy, slt, s	0015-1L
	10 Ca : gy brn, dol	0015-3L
	5 S/Sst : lt gy to w, crs, l	0015-2L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	
2760.00		0016
	100 Sh/Clst: lt gy, slt	0016-1L
	tr S/Sst : lt gy to w, crs, l	0016-2L
	tr Ca : gy brn, dol	0016-3L
2790.00		0017
	100 Sh/Clst: lt gy, slt	0017-1L
	tr S/Sst : lt gy to w, crs, l	0017-2L
	tr Ca : gy brn, dol	0017-3L
2820.00		0018
	70 Sh/Clst: lt gy, slt	0018-1L
	30 Cont : dd	0018-4L
	tr S/Sst : lt gy to w, crs, l	0018-2L
	tr Ca : gy brn, dol	0018-3L
2850.00		0019
	50 Cont : dd	0019-4L
	40 Sh/Clst: lt gy, slt	0019-1L
	10 S/Sst : lt gy to w, crs, l	0019-2L
	tr Ca : gy brn, dol	0019-3L
2880.00		0020
	85 Sh/Clst: lt gy to m gy	0020-1L
	15 S/Sst : lt gy to w, crs, l	0020-2L
	tr Ca : gy brn, dol	0020-3L
	tr Cont : dd	0020-4L
2910.00		0021
	90 Sh/Clst: lt gy to m gy	0021-1L
	10 Cont : dd	0021-3L
	tr S/Sst : lt gy to w, crs, l	0021-2L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	
2940.00		0022
	90 Sh/Clst: lt gy to m gy	0022-1L
	10 Cont : dd	0022-3L
	tr S/Sst : lt gy to w, crs, l	0022-2L
2970.00		0023
	85 Sh/Clst: lt gy to brn gy, slt	0023-1L
	15 Cont : dd	0023-3L
	tr S/Sst : lt gy to w	0023-2L
3000.00		0024
	60 S/Sst : lt gy to w, l	0024-2L
	40 Sh/Clst: lt gy to brn gy, slt	0024-1L
	tr Ca : gy brn, dol	0024-3L
3030.00		0025
	85 Sh/Clst: lt gy to brn gy to m gy to gy brn, slt	0025-1L
	10 S/Sst : lt gy to w, l	0025-2L
	5 Ca : gy brn, dol	0025-3L
3060.00		0026
	100 Sh/Clst: lt gy to m gy	0026-1L
	tr S/Sst : lt gy to w, l	0026-2L
	tr Ca : gy brn, dol	0026-3L
3090.00		0027
	100 Sh/Clst: lt gy to m gy	0027-1L
	tr S/Sst : lt gy to w, l	0027-2L
	tr Ca : gy brn, dol	0027-3L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	-----
3120.00		0028
	100 Sh/Clst: lt gy to m gy tr S/Sst : lt gy to w, l	0028-1L 0028-2L
3140.00		0029
	100 Sh/Clst: lt gy to m gy, slt tr S/Sst : lt gy to w, l	0029-1L 0029-2L
3170.00		0030
	100 Sh/Clst: lt gy to m gy, slt	0030-1L
3200.00		0031
	100 Sh/Clst: lt gy to m gy	0031-1L
3230.00		0032
	100 Sh/Clst: lt gy to m gy	0032-1L
3270.00		0033
	100 Sh/Clst: lt gy to m gy	0033-1L
3300.00		0034
	100 Sh/Clst: lt gy to m gy	0034-1L
3330.00		0035
	100 Sh/Clst: lt gy to m gy	0035-1L



Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	-----
3370.00		0036
	100 Sh/Clst: lt gy to m gy	0036-1L
3400.00		0037
	100 Sh/Clst: lt gy to m gy	0037-1L
3430.00		0038
	100 Sh/Clst: lt gy to m gy	0038-1L
	tr Sltst : m gy	0038-2L
3460.00		0039
	100 Sh/Clst: lt gy to m gy	0039-1L
3490.00		0040
	100 Sh/Clst: lt gy to m gy	0040-1L
3520.00		0041
	100 Sh/Clst: lt gy to m gy, slt	0041-1L
	tr S/Sst : w	0041-2L
3550.00		0042
	100 Sh/Clst: lt gy to m gy	0042-1L
3560.00		0043
	100 Sh/Clst: lt gy to m gy	0043-1L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb	Sample
-----	-----	-----	-----
Int Cvd	% Lithology description		
-----	-----		
3570.00		0044	
	100 Sh/Clst: lt gy to m gy to drk gy		0044-1L
3585.00		0045	
	100 Sh/Clst: m gy to drk gy		0045-1L
3595.00		0046	
	100 Sh/Clst: lt gy to m gy, slt tr S/Sst : w to lt gy		0046-1L 0046-2L
3600.00		0047	
	100 Sh/Clst: lt gy to m gy, slt tr S/Sst : w to lt gy		0047-1L 0047-2L
3630.00		0048	
	90 Sltst : lt gy, s 10 S/Sst : w to lt gy		0048-1L 0048-2L
3660.00		0049	
	100 Sh/Clst: lt gy to m gy, slt tr S/Sst : w to lt gy		0049-1L 0049-2L
3690.00		0050	
	80 Sh/Clst: lt gy to m gy, slt 20 S/Sst : w to lt gy, slt		0050-1L 0050-2L
3720.00		0051	
	95 Sh/Clst: lt gy to m gy, slt 5 S/Sst : w to lt gy, slt		0051-1L 0051-2L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	
3750.00		0052
	65 Sh/Clst: lt gy to m gy, slt	0052-1L
	35 Cont : lt gy, dd	0052-3L
	tr S/Sst : w to lt gy, slt	0052-2L
3780.00		0053
	100 Sh/Clst: lt gy to m gy, slt	0053-1L
	tr S/Sst : w to lt gy, slt	0053-2L
	tr Cont : lt gy, dd	0053-3L
3810.00		0054
	100 Sh/Clst: lt gy to m gy	0054-1L
3840.00		0055
	100 Sh/Clst: lt gy to m gy	0055-1L
	tr S/Sst : w	0055-2L
3870.00		0056
	100 Sh/Clst: lt gy to m gy	0056-1L
3900.00		0057
	100 Sh/Clst: lt gy to m gy to drk gy	0057-1L
3930.00		0058
	100 Sh/Clst: m gy to drk gy	0058-1L
3940.00		0059
	100 Sh/Clst: m gy to drk gy	0059-1L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb	Sample
-----	-----	-----	-----
Int Cvd	% Lithology description		
-----	-----		
3970.00		0060	
	100 Sh/Clst: lt gy to m gy to drk gy		0060-1L
4000.00		0061	
	100 Sh/Clst: lt gy to m gy, slt tr S/Sst : w to lt gy		0061-1L 0061-2L
4030.00		0062	
	100 Sh/Clst: lt gy to m gy to drk gy, slt tr S/Sst : w to lt gy		0062-1L 0062-2L
4060.00		0063	
	100 Sh/Clst: lt gy to m gy to drk gy		0063-1L
4090.00		0064	
	100 Sh/Clst: m gy to drk gy		0064-1L
4120.00		0065	
	100 Sh/Clst: m gy to drk gy		0065-1L
4150.00		0066	
	100 Sh/Clst: drk gy		0066-1L
4180.00		0067	
	100 Sh/Clst: m gy to drk gy		0067-1L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	-----
4210.00		0068
	100 Sh/Clst: m gy to drk gy	0068-1L
4240.00		0069
	100 Sh/Clst: m gy to drk gy, slt	0069-1L
	tr S/Sst : w	0069-2L
4270.00		0070
	100 Sh/Clst: lt gy to m gy to drk gy, slt	0070-1L
4300.00		0071
	100 Sh/Clst: drk gy to m gy	0071-1L
	tr S/Sst : w	0071-2L
4330.00		0072
	100 Sh/Clst: lt gy to m gy to drk gy, slt	0072-1L
4360.00		0073
	100 Sh/Clst: drk gy to m gy, slt	0073-1L
4390.00		0074
	100 Sh/Clst: drk gy to m gy	0074-1L
4420.00		0075
	100 Sh/Clst: drk gy to m gy	0075-1L
	tr S/Sst : w	0075-2L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	-----
4450.00		0076
	100 Sh/Clst: drk gy to m gy	0076-1L
4480.00		0077
	100 Sh/Clst: drk gy to m gy, slt tr S/Sst : w	0077-1L 0077-2L
4510.00		0078
	100 Sh/Clst: m gy to drk gy, slt	0078-1L
4540.00		0079
	100 Sh/Clst: lt gy to m gy to drk gy, slt	0079-1L
4570.00		0080
	100 Sh/Clst: lt gy to m gy to drk gy	0080-1L
4600.00		0081
	100 Sh/Clst: m gy to drk gy	0081-1L
4630.00		0082
	100 Sh/Clst: m gy to drk gy	0082-1L
4660.00		0083
	100 Sh/Clst: m gy to drk gy	0083-1L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	-----
4690.00		0084
	100 Sh/Clst: m gy to drk gy	0084-1L
4720.00		0085
	100 Sh/Clst: m gy to drk gy, slt	0085-1L
4750.00		0086
	100 Sh/Clst: m gy to drk gy, slt	0086-1L
4780.00		0087
	100 Sh/Clst: m gy to drk gy	0087-1L
4810.00		0088
	100 Sh/Clst: m gy to drk gy	0088-1L
4840.00		0089
	100 Sh/Clst: drk gy	0089-1L
4870.00		0090
	100 Sh/Clst: drk gy	0090-1L
4900.00		0091
	100 Sh/Clst: m gy to drk gy	0091-1L
4930.00		0092
	100 Sh/Clst: m gy to drk gy	0092-1L

Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb Sample
-----	-----	-----
Int Cvd	% Lithology description	
-----	-----	-----
4955.00		0093
	100 Sh/Clst: m gy to drk gy	0093-1L
4990.00		0094
	100 Sh/Clst: m gy to drk gy	0094-1L
5020.00		0095
	100 Sh/Clst: m gy to drk gy	0095-1L
	tr S/Sst : w	0095-2L
5050.00		0096
	100 Sh/Clst: m gy to drk gy	0096-1L
5080.00		0097
	100 Sh/Clst: drk gy, slt	0097-1L
5110.00		0098
	100 Sh/Clst: drk gy to m gy	0098-1L
5140.00		0099
	100 Sh/Clst: drk gy	0099-1L
5170.00		0100
	100 Sh/Clst: drk gy	0100-1L



Table 1 : Lithology description for well NOCS 6603/5-1S

Depth unit of measure: m

Depth	Type	Trb	Sample
-----		---	-----
Int Cvd	% Lithology description		
-----	-----		
5200.00		0101	
	100 Sh/Clst: drk gy		0101-1L
5230.00		0102	
	100 Sh/Clst: drk gy		0102-1L
5255.00		0103	
	50 Sh/Clst: drk gy to dsk y brn to brn blk		0103-1L
	50 Cont : prp, fib		0103-2L

## Rock-Eval data: ROCKEVAL

Depth (m)	Sample type	Description	%Lithology	S1	S2	S3	TOC	Tmax	S2/S3	HI	OI	PP	PI	Sample number
2330	cut	shale/claystone	15	0.26	2.05	3.75	1.04	409	0.55	197	361	2.30	0.11	625/0001-2
2360	cut	shale/claystone	100	0.36	1.79	2.01	1.04	377	0.89	172	193	2.20	0.17	625/0002-2
2390	cut	shale/claystone	100	0.43	2.26	1.57	0.87	361	1.44	260	180	2.70	0.16	625/0003-1
2420	cut	shale/claystone	100	0.41	2.29	1.22	1.00	356	1.88	229	122	2.70	0.15	625/0004-1
2450	cut	shale/claystone	100	0.35	2.51	1.24	0.90	429	2.02	279	138	2.90	0.12	625/0005-1
2480	cut	shale/claystone	100	0.33	2.84	1.32	0.89	428	2.15	319	148	3.20	0.10	625/0006-1
2510	cut	siltstone	100	0.32	1.98	1.12	0.76	428	1.77	261	147	2.30	0.14	625/0007-1
2530	cut	siltstone	100	0.21	1.81	1.10	0.83	430	1.65	218	133	2.00	0.10	625/0008-1
2550	cut	siltstone	50	0.18	1.95	0.92	0.86	430	2.12	227	107	2.10	0.08	625/0009-1
2580	cut	siltstone	55	0.22	2.81	1.09	1.14	431	2.58	246	96	3.00	0.07	625/0010-1
2610	cut	siltstone	10	0.22	1.54	1.08	0.93	432	1.43	166	116	1.80	0.13	625/0011-1
2640	cut	siltstone	25	0.13	1.59	0.82	0.99	431	1.94	161	83	1.70	0.08	625/0012-1
2670	cut	shale/claystone	75	0.14	1.23	0.97	1.10	432	1.27	112	88	1.40	0.10	625/0013-1
2700	cut	shale/claystone	70	0.11	1.53	0.74	0.89	432	2.07	172	83	1.60	0.07	625/0014-1
2730	cut	shale/claystone	85	0.15	1.10	0.75	0.88	430	1.47	125	85	1.20	0.12	625/0015-1
2760	cut	shale/claystone	100	0.12	1.28	0.80	0.87	430	1.60	147	92	1.40	0.09	625/0016-1
2790	cut	shale/claystone	100	0.19	2.28	1.10	1.00	431	2.07	228	110	2.50	0.08	625/0017-1
2820	cut	shale/claystone	70	0.25	0.97	1.23	0.70	428	0.79	139	176	1.20	0.20	625/0018-1
2850	cut	shale/claystone	40	0.19	1.70	0.88	0.85	431	1.93	200	104	1.90	0.10	625/0019-1
2880	cut	shale/claystone	85	0.14	0.50	0.75	0.59	429	0.67	85	127	0.60	0.22	625/0020-1
2910	cut	shale/claystone	90	0.14	0.76	0.92	0.71	430	0.83	107	130	0.90	0.16	625/0021-1
2940	cut	shale/claystone	90	0.14	1.30	0.83	0.79	431	1.57	165	105	1.40	0.10	625/0022-1
2970	cut	shale/claystone	85	0.19	1.67	0.88	0.72	429	1.90	232	122	1.90	0.10	625/0023-1
3000	cut	shale/claystone	40	0.26	0.90	1.19	0.76	429	0.76	118	157	1.20	0.22	625/0024-1
3030	cut	shale/claystone	85	0.11	1.01	0.59	0.80	440	1.71	126	74	1.10	0.10	625/0025-1
3060	cut	shale/claystone	100	0.15	1.11	0.78	0.99	438	1.42	112	79	1.30	0.12	625/0026-1
3090	cut	shale/claystone	100	0.09	1.13	0.60	0.95	440	1.88	119	63	1.20	0.07	625/0027-1
3120	cut	shale/claystone	100	0.14	1.03	0.73	0.94	439	1.41	110	78	1.20	0.12	625/0028-1
3140	cut	shale/claystone	100	0.17	1.28	0.65	1.04	438	1.97	123	63	1.40	0.12	625/0029-1
3170	cut	shale/claystone	100	0.12	1.35	0.33	0.96	437	4.09	141	34	1.50	0.08	625/0030-1
3200	cut	shale/claystone	100	0.12	1.56	0.36	0.91	443	4.33	171	40	1.70	0.07	625/0031-1
3230	cut	shale/claystone	100	0.11	1.98	0.34	1.12	443	5.82	177	30	2.10	0.05	625/0032-1

3270	cut	shale/claystone	100	0.14	1.97	0.40	1.05	442	4.93	188	38	2.10	0.07	625/0033-1
3300	cut	shale/claystone	100	0.13	1.81	0.47	1.04	443	3.85	174	45	1.90	0.07	625/0034-1
3330	cut	shale/claystone	100	0.12	1.93	0.58	1.05	447	3.33	184	55	2.00	0.06	625/0035-1
3370	cut	shale/claystone	100	0.13	1.63	0.37	0.97	449	4.41	168	38	1.80	0.07	625/0036-1
3400	cut	shale/claystone	100	0.15	1.70	0.32	1.00	447	5.31	170	32	1.90	0.08	625/0037-1
3430	cut	shale/claystone	100	0.09	1.56	0.34	1.07	449	4.59	146	32	1.60	0.05	625/0038-1
3460	cut	shale/claystone	100	0.14	1.62	0.39	1.08	449	4.15	150	36	1.80	0.08	625/0039-1
3490	cut	shale/claystone	100	0.07	1.42	0.29	1.02	376	4.90	139	28	1.50	0.05	625/0040-1
3520	cut	shale/claystone	100	0.10	1.36	0.40	1.00	444	3.40	136	40	1.50	0.07	625/0041-1
3550	cut	shale/claystone	100	0.14	1.30	0.46	1.00	447	2.83	130	46	1.40	0.10	625/0042-1
3560	cut	shale/claystone	100	0.08	1.19	0.37	1.12	385	3.22	106	33	1.30	0.06	625/0043-1
3570	cut	shale/claystone	100	0.09	0.93	0.39	0.95	439	2.38	98	41	1.00	0.09	625/0044-1
3585	cut	shale/claystone	100	0.07	0.72	0.50	0.99	384	1.44	73	51	0.80	0.09	625/0045-1
3595	cut	shale/claystone	100	0.10	1.60	0.37	0.96	376	4.32	167	39	1.70	0.06	625/0046-1
3600	cut	shale/claystone	100	0.13	1.79	0.48	0.96	369	3.73	186	50	1.90	0.07	625/0047-1
3630	cut	siltstone	90	0.07	1.16	0.40	0.89	381	2.90	130	45	1.20	0.06	625/0048-1
3660	cut	shale/claystone	100	0.10	1.45	0.34	0.98	379	4.26	148	35	1.60	0.06	625/0049-1
3690	cut	shale/claystone	80	0.07	1.04	0.36	0.90	381	2.89	116	40	1.10	0.06	625/0050-1
3720	cut	shale/claystone	95	0.18	1.19	0.33	0.98	387	3.61	121	34	1.40	0.13	625/0051-1
3750	cut	shale/claystone	65	0.08	1.02	0.56	0.79	447	1.82	129	71	1.10	0.07	625/0052-1
3780	cut	shale/claystone	100	0.16	1.35	0.43	0.89	441	3.14	152	48	1.50	0.11	625/0053-1
3810	cut	shale/claystone	100	0.20	1.24	0.29	0.89	431	4.28	139	33	1.40	0.14	625/0054-1
3840	cut	shale/claystone	100	0.10	1.28	0.40	1.00	384	3.20	128	40	1.40	0.07	625/0055-1
3870	cut	shale/claystone	100	0.12	1.28	0.31	0.91	384	4.13	141	34	1.40	0.09	625/0056-1
3900	cut	shale/claystone	100	0.11	1.58	0.31	0.96	379	5.10	165	32	1.70	0.07	625/0057-1
3930	cut	shale/claystone	100	0.10	1.37	0.45	0.96	383	3.04	143	47	1.50	0.07	625/0058-1
3940	cut	shale/claystone	100	0.16	1.85	0.32	0.98	378	5.78	189	33	2.00	0.08	625/0059-1
3970	cut	shale/claystone	100	0.12	1.37	0.45	0.96	442	3.04	143	47	1.50	0.08	625/0060-1
4000	cut	shale/claystone	100	0.13	1.29	0.44	0.91	438	2.93	142	48	1.40	0.09	625/0061-1
4030	cut	shale/claystone	100	0.08	1.27	0.32	0.79	387	3.97	161	41	1.40	0.06	625/0062-1
4060	cut	shale/claystone	100	0.10	1.17	0.40	0.91	385	2.92	129	44	1.30	0.08	625/0063-1
4090	cut	shale/claystone	100	0.13	1.95	0.32	0.89	376	6.09	219	36	2.10	0.06	625/0064-1
4120	cut	shale/claystone	100	0.14	1.63	0.33	0.82	381	4.94	199	40	1.80	0.08	625/0065-1
4150	cut	shale/claystone	100	0.11	1.55	0.30	0.90	382	5.17	172	33	1.70	0.07	625/0066-1
4180	cut	shale/claystone	100	0.14	1.48	0.28	0.93	382	5.29	159	30	1.60	0.09	625/0067-1
4210	cut	shale/claystone	100	0.19	1.18	0.35	0.99	386	3.37	119	35	1.40	0.14	625/0068-1

4240	cut	shale/claystone	100	0.16	1.34	0.33	1.01	378	4.06	133	33	1.50	0.11	625/0069-1
4270	cut	shale/claystone	100	0.12	1.11	0.46	1.00	387	2.41	111	46	1.20	0.10	625/0070-1
4300	cut	shale/claystone	100	0.25	1.54	0.28	1.13	379	5.50	136	25	1.80	0.14	625/0071-1
4330	cut	shale/claystone	100	0.12	0.97	0.29	0.83	383	3.34	117	35	1.10	0.11	625/0072-1
4360	cut	shale/claystone	100	0.11	1.40	0.26	0.93	382	5.38	151	28	1.50	0.07	625/0073-1
4390	cut	shale/claystone	100	0.11	1.10	0.31	0.89	386	3.55	124	35	1.20	0.09	625/0074-1
4420	cut	shale/claystone	100	0.09	1.06	0.27	0.90	387	3.93	118	30	1.10	0.08	625/0075-1
4450	cut	shale/claystone	100	0.10	1.11	0.27	1.02	383	4.11	109	26	1.20	0.08	625/0076-1
4480	cut	shale/claystone	100	0.09	1.16	0.31	1.06	386	3.74	109	29	1.20	0.07	625/0077-1
4510	cut	shale/claystone	100	0.15	1.34	0.26	1.01	381	5.15	133	26	1.50	0.10	625/0078-1
4540	cut	shale/claystone	100	0.10	1.44	0.37	0.89	379	3.89	162	42	1.50	0.06	625/0079-1
4570	cut	shale/claystone	100	0.09	1.31	0.30	0.97	385	4.37	135	31	1.40	0.06	625/0080-1
4600	cut	shale/claystone	100	0.10	1.38	0.29	0.92	382	4.76	150	32	1.50	0.07	625/0081-1
4630	cut	shale/claystone	100	0.13	1.66	0.35	1.07	380	4.74	155	33	1.80	0.07	625/0082-1
4660	cut	shale/claystone	100	0.10	0.84	0.28	1.31	394	3.00	64	21	0.90	0.11	625/0083-1
4690	cut	shale/claystone	100	0.13	1.25	0.32	1.29	386	3.91	97	25	1.40	0.09	625/0084-1
4720	cut	shale/claystone	100	0.08	0.90	0.39	1.12	391	2.31	80	35	1.00	0.08	625/0085-1
4750	cut	shale/claystone	100	0.09	1.36	0.30	1.12	384	4.53	121	27	1.50	0.06	625/0086-1
4780	cut	shale/claystone	100	0.09	1.36	0.38	1.38	382	3.58	99	28	1.50	0.06	625/0087-1
4810	cut	shale/claystone	100	0.09	1.42	0.50	1.15	386	2.84	123	43	1.50	0.06	625/0088-1
4840	cut	shale/claystone	100	0.11	1.60	0.35	1.07	373	4.57	150	33	1.70	0.06	625/0089-1
4870	cut	shale/claystone	100	0.12	1.62	0.33	1.36	389	4.91	119	24	1.70	0.07	625/0090-1
4900	cut	shale/claystone	100	0.09	1.26	0.33	1.41	385	3.82	89	23	1.40	0.07	625/0091-1
4930	cut	shale/claystone	100	0.13	1.74	0.50	1.11	414	3.48	157	45	1.90	0.07	625/0092-1
4955	cut	shale/claystone	100	0.20	1.63	0.40	1.49	421	4.07	109	27	1.80	0.11	625/0093-1
4990	cut	shale/claystone	100	0.09	1.20	0.40	1.32	399	3.00	91	30	1.30	0.07	625/0094-1
5020	cut	shale/claystone	100	0.11	1.06	0.46	1.41	396	2.30	75	33	1.20	0.09	625/0095-1
5050	cut	shale/claystone	100	0.12	1.41	0.46	1.26	375	3.07	112	37	1.50	0.08	625/0096-1
5080	cut	shale/claystone	100	0.19	1.59	0.43	1.18	419	3.70	135	36	1.80	0.11	625/0097-1
5110	cut	shale/claystone	100	0.12	1.10	0.43	1.32	414	2.56	83	33	1.20	0.10	625/0098-1
5140	cut	shale/claystone	100	0.11	1.25	0.42	1.16	416	2.98	108	36	1.40	0.08	625/0099-1
5170	cut	shale/claystone	100	0.30	1.50	0.48	1.29	401	3.13	116	37	1.80	0.17	625/0100-1
5200	cut	shale/claystone	100	0.09	1.25	0.53	1.08	420	2.36	116	49	1.30	0.07	625/0101-1
5230	cut	shale/claystone	100	0.12	1.22	0.46	1.34	420	2.65	91	34	1.30	0.09	625/0102-1