

Porosity and permeability data derived from core chips of the

ARCO Alaska Inc. Tarn No. 2 (5,517.15' – 5,643.15'),
ARCO Alaska Inc. Tarn No. 3 (5,216.0' – 5,305.0'), and
ARCO Alaska Inc. Tarn No. 4 (5,485.0' – 5,545.0').



Received 8 January 2003

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Alaska Geologic Materials Center Data Report No. 307

TARN 3					TARN 4						
Lithology	Sample size (cm)	Porosity %	Perm (mD) Horizontal	Oil sat PV%	Density gm/cc	Lithology	Sample size (cm)	Porosity %	Perm (mD) Horizontal	Oil sat PV%	Density gm/cc
5216.0 V. fine sst/siltstone	2.5x1.4	13.6	0.07	0.0	2.67	5459.0 Sst	2.5x2.5	no data			
5217.0 Sst with vf shale clasts	2.5x2.0	17.6	0.2	26.7	2.59	5460.1 Sst	2.5x2.5	no data			
5226.0 Sst + thin shale lamina	2.5x2.0	14.5	0.2	12.6	2.61	5461.2 Interbedded sst/mudstone	2.5x2.0	no data			
5232.0 Finely interbedded mdstone/sst	2.5x2.4	14.1	0.08	17.3	2.68	5467.0 Sst	2.5x3.0	no data			
5235.0 Sst	2.5x2.0	16.2	0.5	36.2	2.60	5475.0 Sst	2.5x2.5	no data			
5243.0 Sst with v fine shale laminae	2.5x1.8	13.6	0.06	0.0	2.66	5480.0 Mudstone	2.5x1.0	no data			
5254.0 Finely interbedded mdstone/sst	2.5x2.5	14.6	0.1	14.0	2.67	5485.0 Sst	2.5x3.0	19.6	0.6	21.9	2.78
5261.1 Sst with thin shale laminae	2.5x3.0	16.1	0.5	17.7	2.62	5486.0 Calc sst	2.5x3.0	6.7	0.005	0.0	2.74
5278.0 Sst	2.4x2.0	20.2	2.7	36.8	2.70	5489.0 Finely interbedded mudst & sst	2.5x2.0	13.1	0.3	0.0	2.68
5283.0 Calc sst	2.5x2.5	8.3	0.01	0.0	2.69	5490.0 Sst	2.5x1.5	13.3	0.7	0.0	2.71
5289.0 Sst	2.5x1.5	22.1	20.5	30.2	2.67	5491.0 Mudst/sst 70:30 bed contact	1.0x1.5	13.2	0.9	0.0	2.72
5293.0 Sst (with calc concretion edge)	1.8x3.5	7.2	0.005	0.0	2.68	5500.0 Sst	2.5x2.5	17.9	0.5	18.1	2.64
5296.0 Calc sst	2.5x1.8	11.0	0.006	0.0	2.76	5501.0 Calc sst	2.5x2.0	4.8	0.004	0.0	2.65
5299.0 Sst	2.5x2.5	19.2	5.3	31.3	2.68	5504.0 Sst	2.5x2.0	21.5	4.6	32.8	2.63
5302.0 Sst	2.5x2.2	20.2	5.1	31.4	2.63	5510.0 Calc sst	2.5x2.5	4.7	0.003	0.0	2.69
5305.0 Calc sst	2.5x2.0	6.8	0.006	21.1	2.73	5512.0 Sst	2.5x2.0	22.4	12	27.8	2.62
						5526.0 Mudstone	2.5x2.5	12.9	0.03	0.0	2.71
						5538.0 Sst + thin mdst lams	2.5x1.5	10.3	0.04	0.0	2.62
						5545.0 Mudst +minor v thin sst lams	2.5x2.2	11.9	0.05	0.0	2.69

Alaska.

TARN 1	Lithology	Sample size(cm)	Porosity %	Perm (mD) Horizontal	Oil sat PV%	Density gm/cc	TARN 2	Lithology	Sample size (cm)	Porosity %	Perm (mD) Horizontal	Oil sat PV%	Density gm/cc
4851.0	vf-f sst	2.5x0.8	no data				5517.15	Sst	4.0x1.0	20.3	5.6	39.7	2.61
4859.0	f-m sst	0.8x2.5	no data				5518.05	Sst/mdst interbeds	1.2x3.0	20.2	15.1	28.3	2.62
4861.0	f sst	2.5x1.2	no data				5521.15	sst	2.5x2.0	19.9	1.4	30.2	2.61
4862.0	f sst + thin mud interlamination	2.5x1.5	no data				5522.15	Calc sst	1.5x2.0	3.8	0.002	21.7	2.65
4864.0	f sst	2.5x1.5	no data				5523.15	Sst + part mdst bed	1.2x3.0	18.8	1.8	19.9	2.62
4866.0	f-m sst	2.5x2.0	no data				5525.15	Sst	2.5x1.5	17.7	4.1	19.5	2.57
4867.0	silty mudstone	2.5x1.0	no data				5531.15	Sst	2.5x1.8	18.7	0.7	24.4	2.57
4869.0	mudstone	2.0x2.5	no data				5534.15	Sst	1.0x2.0	18.7	14.7	49.4	2.57
4871.0	calc mudstone	2.5x1.5	no data				5540.15	Sst	2.5x0.7	27.4	30.9	51.1	2.78
5290-5300	mudstone	4 chips	no data				5551.15	Sst	2.5x1.2	21.6	43.7	46.2	2.62
							5556.15	Sst	2.5x1.7	12.2	0.07	0.0	2.65
							5574.15	Sst	2.5x1.8	17.3	0.8	22.7	2.59
							5576.15	Sst	2.5x1.5	15.4	2.3	39.5	2.62
							5587.15	Sst	2.5x2.0	17.8	2.4	38.9	2.54
							5589.15	Sst	2.5x2.0	9.0	0.1	25.4	2.56
							5594.15	vf interbedded sst/mdst	1.0x2.5	9.6	0.6	0.2	2.59
							5596.15	Mudstone	2.5x1.0	12.3	0.02	0.1	2.66
							5597.15	Silty mudstone	2.5x1.5	12.0	0.02	0.2	2.67
							5600.55	Mudstone + calc vein	2.5x1.0	15.8	0.05	0.0	2.67
							5602.15	Mudstone	2.0x1.5	11.7	0.007	0.0	2.66
							5604.15	Sst	2.5x2.2	19.4	5.7	45.7	2.68
							5616.15	Sst	2.5x2.0	12.3	0.002	3.1	2.69
							5619.15	Sst	2.5x2.0	15.8	0.1	2.8	2.65
							5624.15	Sst	2.5x0.7	15.8	0.02	0.0	2.69
							5629.15	Sst	2.5x1.5	18.1	0.3	0.0	2.68
							5634.15	Sst	3.0x1.5	17.7	1.2	0.0	2.70
							5641.70	Mudstone	2.0x2.0	13.6	0.07	0.0	2.70
							5643.15	Sst + vf mud laminae	2.5x1.5	12.6	0.05	0.2	2.68

Tarn 1 notes: also took some mudstone cuttings from 5290-5300.
 All sandstones are grey except 4859, which is brown.
 All samples are slices of 1" vertical plugs.
 Because no logs or core descriptions were available for Tarn 1, grain sizes were estimated during sampling.
 See core analysis descriptions for Tarn 2,3 & 4 grain sizes.

vf = very fine
 f = fine
 m = medium
 calc = calcareous
 sst = sandstone
 mdst = mudstone

Sst, mdst etc. = sent for thin sectioning

Tarn 1 4 thin sections
 Tarn 2 9 thin sections
 Tarn 3 6 thin sections
 Tarn 4 7 thin sections

All samples are vertical plugs.
 Porosity, permeability, oil saturation and grain density data are taken from the Core Lab report for Arco.