

**KUTh Exploration Ltd
Tasmania**

Drill log sheet

Hole Name:	Murdunna	Project:	Shallow heat flow program	
Hole No:	K45DD029	Licence area:	SEL45/2007	
Datum:	GDA94 Zone 55	Location:	Murdunna, Tasmania	
Collar RL (m):	139	Collar co-ordinates:	573413E, 5242021N	
Total depth (m):	252.1			
Logged by:				
Contractor:	Gerald Spaulding Drillers Pty Ltd			
Inclination:	Azimuth:	Survey:	Remarks:	
	vertical hole	no		
Drilling type:	From (m)	To (m)	Start drilling:	Finish drilling:
RC	0	102.1	17/06/2008	19/06/2008
Diamond (HQ)	102.1	252.1	16/07/2008	26/07/2008
Drilling summary: 0-252.1m Jurassic Dolerite Casing to 252.1m				

Prospect	Hole_ID	RIG	mFrom	mTo	Formation	Rock1	Colour	Regolith	Shear	Description
SEL 45/2007	K45DD029	RC	0	3	Jdl	JDD	B1	SOIL		Brown sandy clay plus minor organic content from surface.
SEL45/2007	K45DD029	RC	3	6	Jdl	JDD	B1	SOIL		weakly consolidated gravelly light brown soil
SEL45/2007	K45DD029	RC	6	9	Jdl	JDD	B	USAP		Weathered dolerite, minor original fabric preserved (ie texture of the pyroxene xls preserved). Gravelly, ferruginised. pervasive selective replacement by white clay of plag.
SEL 45/2007	K45DD029	RC	9	12	Jdl	JDD	A	SAP		Dolerite becoming fresh. Minor amount of weathering present (ferruginised). Otherwise fine grained fresh dolerite
SEL45/2007	K45DD029	RC	12	15	Jdl	JDD	A	FRESH		Fresh unaltered fine grained dolerite.
SEL45/2007	K45DD029	RC	15	18	Jdl	JDD	A	FRESH		as above
SEL45/2007	K45DD029	RC	18	21	Jdl	JDD	B2	FRESH		FG dolerite with minor carbonate + gypsum veining. The dolerite groundmass often brown discolouring in association with the veining.
SEL45/2007	K45DD029	RC	21	24	Jdl	JDD	B2	FRESH		Euhedral very fine prismatic masses of zeolites forming in association with carbonate veins. Interval displays weathering and aggregates of orange clay, could be associated with the veining, or a small shear zone.
SEL45/2007	K45DD029	RC	24	27	Jdl	JDD	A	FRESH		Fresh dark grey/blue fine grained dolerite with very minor carbonate. Minor grey sericitic clay on a minor proportion of the chips suggestive of small fracture system.
SEL45/2007	K45DD029	RC	27	30	Jdl	JDD	A	FRESH		as above with the presence of very minor Fe staining.
SEL45/2007	K45DD029	RC	30	33	Jdl	JDD	A	FRESH		as above with no Fe staining.
SEL45/2007	K45DD029	RC	33	36	Jdl	JDD	A	FRESH		Euhedral fg plagioclase & pyroxene phenocrysts with very minor disseminated pyrite. Minor Fe staining on some chips and minor carbonate.
SEL45/2007	K45DD029	RC	36	39	Jdl	JDD	A	FRESH		fg dolerite with minor carbonate. Proportion of Fe staining increasing and no pyrite seen.
SEL45/2007	K45DD029	RC	39	42	Jdl	JDD	A	FRESH		Medium grained dolerite increasing in competence with minor disseminated pyrite.

SEL45/2007	K45DD029	RC	42	45	Jdl	JDD	A	FRESH		Competent medium grained dolerite with minor carbonate & pyrite (<0.5%)
SEL45/2007	K45DD029	RC	45	48	Jdl	JDD	A	FRESH		Carbonate content increasing within competent fine grained dolerite.
SEL45/2007	K45DD029	RC	48	51	Jdl	JDD	A	FRESH		Dolerite chips becoming finer some zeolite present and minor carbonate
SEL45/2007	K45DD029	RC	51	54	Jdl	JDD	A	FRESH		Competent fg dolerite with very minor Fe staining on some chips. Carbonate and minor zeolite also present.
SEL45/2007	K45DD029	RC	54	81	Jdl	JDD	A	FRESH		fresh grey dolerite with very minor <1mm cb veining.
SEL45/2007	K45DD029	RC	81	99	Jdl	JDD	A	FRESH		moderately talc-cb-gyp veined dolerite, with chlorite+Fe selvage to veins. Veins >5mm wide. Vein material very soft - clayey in chip tray in parts.
SEL45/2007	K45DD029	RC	99	102	Jdl	JDD	A	FRESH		fresh grey dolerite, very minor cb veining.
				EOH						Geologist: K Heynes
SEL45/2007	Murdunna	DD	102	112.6	Jdl	JDD	A	FRESH		mkg dol with regular (=/- 1/m) sheeted cb-zeolite-talc+/-gyp vns typically 0.5-1cm thick dipping ~70deg. Very minor patchy chlorite assoc with vns. Half the vns within this interval are pink and Fe stained and the calcite is brownish grey.
SEL45/2007	Murdunna	DD	112.6	117	Jdl	JDD	A	FRESH	10	as above with increasing intensity of veining. Minor bronzite within majority of Fe alteration haloes surrounding vns with core becoming less competent.
SEL45/2007	Murdunna	DD	117	121	Jdl	JDD	A	FRESH	20	cg dolerite becoming more intensely Fe altered with assoc increase in veining. Bronzite becoming very common.
SEL45/2007	Murdunna	DD	121	123.75	Jdl	JDD	A	FRESH	20	Dominantly fault pug composed of carbonate clay and doleritic gravel and sericite.
SEL45/2007	Murdunna	DD	123.75	126.54	Jdl	JDD	A	FRESH	10	cg dolerite, fractured with dominantly talc-zeolite-cb vein up to 1.5cm thick, // to c.a. Significant alteration halo surrounding vn.
SEL45/2007	Murdunna	DD	126.54	140	Jdl	JDD	A	FRESH		Dominantly competent cg dolerite with minor fine and mg zones. Very few veins within this interval, and alteration very minor and

										restricted to veins.
SEL45/2007	Murdunna	DD	140	163	Jdl	JDD	A	FRESH		cg dolerite with minor mg intervals. Veins dominantly sheeted and generally <7mm thick and dipping ~70deg.
SEL45/2007	Murdunna	DD	163	171.97	Jdl	JDD	A	FRESH		Veins increasing between 163-166m. Dolerite competent and becoming lighter at around 166.8m although boundary diffuse.
SEL45/2007	Murdunna	DD	171.97	175.99	Jdl	JDD	A	FRESH		Competent fg dolerite with minor mg interval @ 175m.
SEL45/2007	Murdunna	DD	175.99	190.36	Jdl	JDD	A	FRESH		Dominantly cg dolerite with minor zeolite/carbonate veins with patchy chlorite within veins, dipping ~80deg.
SEL45/2007	Murdunna	DD	190.36	195.3	Jdl	JDD	A	FRESH		grainsize variable within competent JDI and minor zeolite veins with subordinate cb (calcite) vns.
SEL45/2007	Murdunna	DD	195.3	214.37	Jdl	JDD	A	FRESH		Competent cg dol with minor finer grained intervals. Almost no veins within this interval.
SEL45/2007	Murdunna	DD	214.37	219.47	Jdl	JDD	A	FRESH	10	mfg Jdl - bkn with steeply dipping talc-zeolite-cb vein running sub// to c.a. Fe staining dominant with qweathered pyx with some bronzite.
SEL45/2007	Murdunna	DD	219.47	225.5	Jdl	JDD	A	FRESH		competent vcg dol - no vns.
SEL45/2007	Murdunna	DD	225.5	228	Jdl	JDD	A	FRESH	10	mfg dol with zeolite. Cb vns sheeted and dipping 60-70deg. Vns becoming anastomising @ 227m.
SEL45/2007	Murdunna	DD	228	252.1	Jdl	JDD	A	FRESH	10	Competent cmg JDI. Grainsize variable within mg-cg. Scattered steeply dipping sheeted veins dominantly zeolite-cb with zeolite-cb-talc vein @ 248m.

Drill hole recovery RQD

DataSet	Hole_ID	mFrom	mTo	Recovered	Recovery%	sum sticks core >10cm (cm)	RQD	No. breaks	Comments
KUTh_2008	K45DD029	102	105.6	3.66	101.7	2.7	75.0	15	
KUTh_2008	K45DD029	105.6	108.6	3.06	102.0	3.06	102.0	11	
KUTh_2008	K45DD029	108.6	111.6	3	100.0	2.55	85.0	14	
KUTh_2008	K45DD029	111.6	114.6	2.8	93.3	2.33	77.7	21	very broken
KUTh_2008	K45DD029	114.6	117.6	3	100.0	2.3	76.7	18	
KUTh_2008	K45DD029	117.6	120.6	2.92	97.3	2.32	77.3	20+	
KUTh_2008	K45DD029	120.6	123.6	3	100.0	0.65	21.7	20+	fault zone - highly broken
KUTh_2008	K45DD029	123.6	126.6	2.78	92.7	2.2	73.3	20+	
KUTh_2008	K45DD029	126.6	129.6	3	100.0	2.91	97.0	6	
KUTh_2008	K45DD029	129.6	132.6	3	100.0	2.45	81.7	16	breaks along veins of talc-gyp and vein material washed away
KUTh_2008	K45DD029	132.6	135.6	3.05	101.7	2.89	96.3	7	
KUTh_2008	K45DD029	135.6	138.6	3.03	101.0	2.81	93.7	9	
KUTh_2008	K45DD029	138.6	141.6	3	100.0	2.69	89.7	10	
KUTh_2008	K45DD029	141.6	144.6	3	100.0	2.99	99.7	3	
KUTh_2008	K45DD029	144.6	147.6	3	100.0	3	100.0	6	
KUTh_2008	K45DD029	147.6	150.6	3	100.0	2.97	99.0	1	
KUTh_2008	K45DD029	150.6	152.8	2.2	100.0	2	90.9	7	
KUTh_2008	K45DD029	152.8	155.9	3.1	100.0	3.1	100.0	5	
KUTh_2008	K45DD029	155.9	159	3.1	100.0	2.98	96.1	11	
KUTh_2008	K45DD029	159	162.1	3.1	100.0	3.1	100.0	7	
KUTh_2008	K45DD029	162.1	165.2	3.1	100.0	2.76	89.0	13	
KUTh_2008	K45DD029	165.2	168.3	3.1	100.0	3.1	100.0	5	
KUTh_2008	K45DD029	168.3	171.4	3.1	100.0	3.01	97.1	3	
KUTh_2008	K45DD029	171.4	174.5	3.1	100.0	2.93	94.5	8	
KUTh_2008	K45DD029	174.5	177.6	3.1	100.0	3.1	100.0	5	
KUTh_2008	K45DD029	177.6	180.6	3	100.0	2.9	96.7	8	

KUTh_2008	K45DD029	180.6	183.6	3	100.0	2.93	97.7	7
KUTh_2008	K45DD029	183.6	186.3	3	111.1	2.76	102.2	6
KUTh_2008	K45DD029	186.3	189.4	3.1	100.0	2.88	92.9	8
KUTh_2008	K45DD029	189.4	192.6	3.2	100.0	3.04	95.0	5
KUTh_2008	K45DD029	192.6	195.6	3	100.0	2.87	95.7	8
KUTh_2008	K45DD029	195.6	198.6	3	100.0	2.66	88.7	8
KUTh_2008	K45DD029	198.6	201.6	3	100.0	2.93	97.7	8
KUTh_2008	K45DD029	201.6	204.6	3	100.0	2.92	97.3	8
KUTh_2008	K45DD029	204.6	207.6	3	100.0	2.84	94.7	6
KUTh_2008	K45DD029	207.6	210.6	3	100.0	2.99	99.7	1
KUTh_2008	K45DD029	210.6	213.6	3	100.0	2.98	99.3	5
KUTh_2008	K45DD029	213.6	216.6	3	100.0	2.79	93.0	11
KUTh_2008	K45DD029	216.6	219.6	3	100.0	2.75	91.7	17
KUTh_2008	K45DD029	219.6	222.6	3	100.0	2.82	94.0	9
KUTh_2008	K45DD029	222.6	225.6	3	100.0	3	100.0	7
KUTh_2008	K45DD029	225.6	228.6	3	100.0	2.6	86.7	14
KUTh_2008	K45DD029	228.6	231.6	3	100.0	2.94	98.0	6
KUTh_2008	K45DD029	231.6	234.6	3	100.0	2.85	95.0	9
KUTh_2008	K45DD029	234.6	237.6	3	100.0	2.8	93.3	7
KUTh_2008	K45DD029	237.6	240.6	3	100.0	2.84	94.7	7
KUTh_2008	K45DD029	240.6	243.6	3.1	103.3	2.95	98.3	7
KUTh_2008	K45DD029	243.6	246.3	2.96	109.6	2.96	109.6	6
KUTh_2008	K45DD029	246.3	249.6	3	90.9	2.78	84.2	10
KUTh_2008	K45DD029	249.6	252.1	2.46	98.4	2.46	98.4	5