

King Island Heavy Mineral Project Tasmania
Auger Sampling 10th May to 16th May 2007.
Sample descriptions.
Geodetic Datum:GDA94 Zone 55

Hole YAG 01

235651 E, 5599950 N, 20.9m ASL

Sample 6155685, 0 to 1.2m. THM=2.0%, Fines=4.72%

0 – 0.4m Dark grey fine to medium grained sandy soil.

0 – 2.2m Dark yellow brown, fine medium grained sand. Well sorted and rounded.

Sample 6155686, 1.2 to 2.2m. THM=1.85%, Fines=2.86%

Yellow brown to dark orange, fine to medium grained sand. Silty and moderately sorted and rounded. >1.0% heavy minerals.

Sample 6155687, 2.2 to 3.2m. THM=2.42%, Fines=3.91%

Interbedded yellow brown, yellowish orange and dark grey fine medium grained sand. Rounded and well sorted. >2.0% heavy minerals.

Sample 6155688, 3.2 to 4.0m. THM=2.24%, Fines=7.6%

Light yellowish brown to orange, fine medium sand. Rounded and well sorted. Becomes wet and clayey over the basal part. >2.0% heavy minerals.

Hole YAG 02

235018 E, 5599951N, 19.5m ASL

Sample 6155689, 0 to 1.2m. THM=2.23%, Fines=5.26%

0 – 0.5m, Dark grey, fine to medium grained sandy soil.

0.5 – 1.2m, Dark yellow brown, fine to medium grained sand. Rounded and well sorted. Heavy minerals become visible near base.

Sample 6155690, 1.2 to 2.2m. THM=3.68%, Fines=2.92%

Dark yellow brown, light brown and light grey, fine medium grained sand. Rounded and well sorted. >2.0% heavy minerals.

Sample 6155691, 2.2 to 3.2m. THM=3.26%, Fines=4.33%

Yellowish orange and orange, fine medium grained sand. Well sorted and rounded. >3.0% heavy minerals.

Sample 6155692, 3.2 to 4.2m. THM=2.40%, Fines=8.1%

Light yellowish orange and white, fine medium grained sand. Well sorted and rounded and clean. Becomes moist at base. >3.0% heavy minerals.

Hole YAG 03

234410 E, 5599973 N, 16.6m ASL

Sample 6155693, 0 to 1.2m. THM=3.11%, Fines=6.88%

0 – 0.75m, Dark grey fine medium grained sandy soil.

0.75 – 1.2m, Dark orange, partly cemented, fine medium grained sand. Rounded and well sorted. >2.0% heavy minerals.

Sample 6155694, 1.2 to 2.2m. THM=2.70%, Fines=7.05%

Light yellowish orange to light orange, fine medium sand. Clean, well sorted and rounded. >3.0% heavy minerals.

Sample 6155695, 2.2 to 3.2m. THM=1.46%, Fines=16.01%

Very light bluish green, fine medium sand. Wet, clayey and possibly slightly glauconitic. >3.0% heavy minerals.

Sample 6155696, 3.2 to 3.5m. THM=1.56%, Fines=13.4%

Pale yellow to pale green medium grained sand. Subrounded and moderately sorted. Common heavy minerals. Hole abandoned due to water inflow and caving.

Hole YAG 04

234403 E, 5599628 N, 9.6m ASL

Sample 6155697, 0 to 1.2m. THM=1.14%, Fines=24.75%

Black sandy soil at top underlain by greyish yellow, fine to medium grained sand. Above grades into black organic rich fine to medium grained sand and bluish grey very clayey sand. Minor heavy minerals.

Sample 6155698, 1.2 to 2.2m. THM=0.72%, Fines=40.16%

Interbedded bluish grey and orange, plastic sandy clay.

Hole YAG 05

233973 E, 5599928N, 10.8m ASL

Sample 6155699, 0 to 1.2m. THM=1.54%, Fines=9.35%

0 – 0.25m. Black sandy soil.

0.25 – 1.2m. Interbedded pale yellow and light brown, fine medium grained sand. Rounded and well sorted. >3.0% heavy minerals.

Sample 6155700, 1.2 to 2.2m. THM=1.06%, Fines=14.47%

Dark brown fine medium grained sand and peat, underlain by light yellow brown, poorly sorted, rounded medium grained sand. Smells strongly of hydrogen sulphide.

Hole YAG 06

234821 E, 5600387 N, 22.9m ASL

Sample 6155701, 0 to 1.2m. THM=2.06%, Fines=4.82%

Medium yellow brown, fine and fine medium grained sand and some silt. Calcareous in part. Calcareous shell fragments common near base.

Sample 6155702, 1.2 to 1.6m. THM=0.76%, Fines=18.12%

Pale yellow, medium grained carbonate cemented sand. Abundant shell fragments and minor heavy minerals. Hole abandoned due to carbonate cement.

Hole YAG 07

236301 E, 5600225 N, 29.7m ASL

Sample 6155703, 0 to 1.2m. THM=1.66%, Fines=3.79%

Dark yellow brown, fine medium and medium grained sand. Moderately sorted, rounded and slightly clayey. Trace heavy minerals

Sample 6155704, 1.2 to 2.2m. THM=1.90%, Fines=3.01%

Yellow brown, fine medium grained sand. Rounded, moderately sorted and clean. Trace heavy minerals.

Sample 6155705, 2.2 to 3.2m. THM=2.34%, Fines=4.88%

Interbedded dark brown and yellow brown, fine medium grained sand. Moderately sorted and carbonaceous. >2.0% heavy minerals.

Sample 6155706, 3.2 to 4.2m. THM=2.18%, Fines=6.77%

Pale yellow brown to dark brown, carbonaceous, fine medium grained sand. Well sorted, sub-rounded and relatively clean. >1.0% heavy minerals.

YAG 08

233552 E, 5598606 N, 30.6m ASL

Sample 6155707, 0 to 1.2m. THM=0.17%, Fines=45.07%

Yellow brown to light greyish green, sandy clay and clayey sand. Sand is medium to coarse grained, sub-angular and poorly sorted.

No sample taken 1.2 to 2.2m.

Pale greyish yellow coarse grained clayey sand. Angular, poorly sorted, micaceous and kaolinitic. This lithology is considered to be weathered, granitic basement.

YAG 09

236850 E, 5599830 N, 15.4m ASL

Sample 6155708, 0 to 1.2m. THM=1.94%, Fines=7.1%

0 – 0.3m. Black sandy soil. Fine medium grained and well sorted.

0.3 – 0.8m. Light yellowish grey fine medium sand. Rounded and well sorted. >3.0% heavy minerals.

0.8 – 1.2m. Medium yellowish brown fine medium sand. Rounded and well sorted. >2.0% heavy minerals.

Sample 6155709, 1.2 to 2.2m. THM=1.95%, Fines=7.28%

Orange fine to medium grained sand. Rounded and moderately sorted. Near base of hole the sand becomes clayey, dark grey, wet and the grainsize fines. >2.0% heavy minerals.

YAG 10

237425 E, 5600024 N, 18.2m ASL

Sample 6155710, 0 to 1.2m. THM=1.81%, Fines=10.38%

0 – 0.2m. Dark grey sandy soil. Fine medium grained and well sorted.

0.2m – 1.0m. Orange and dark yellowish brown, ferruginous, fine to medium grained sand. Rounded and moderately sorted.

1.0 – 1.2m. Orange fine medium grained sand. Rounded, well sorted and clean. Trace heavy minerals.

Sample 6155711, 1.2 to 2.0m. THM=3.03%, Fines=7.9%

1.2 – 1.8m. Yellowish brown to orange, slightly ferruginous, fine medium grained sand. Rounded and moderately sorted. >1.0% heavy minerals.

1.8 – 2.0m. Light orange fine to medium grained calcareous sand. Well sorted, sub-angular. Common shell fragments. >2.0% heavy minerals. Wet, clean and caving.

Hole YAG 11

238400 E, 5600344 N, 17.7m ASL

Sample 6155712, 0 to 1.2m. THM=1.4%, Fines=14.55%

Dark yellowish grey fine medium grained clayey sand. Wet, well sorted, carbonaceous and rounded.

Sample 6155713, 1.2 to 2.2m. THM=1.09%, Fines=14.53%

Light grey, green and yellowish grey fine, medium and coarse grained, sand. Sub-rounded, poorly sorted and wet. Glauconitic. Trace heavy minerals.

Hole YAG 12

240327 E, 5601032 N, 22.2m ASL

Sample 6155714, 0 to 1.2m. THM=0.78%, Fines=7.08%

Dark grey grading to mid grey fine medium grained sand. Rounded and well sorted. Peat occurs at the base. Trace of heavy minerals.

Sample 6155715, 1.2 to 2.0m. THM=0.73%, Fines=11.7%

Very dark brown fine to medium grained sand and peat. Moderately sorted, clayey, sub-rounded to sub-angular and carbonaceous. Strong odour of hydrogen sulphide.

Hole YAG 13

240303 E, 5600864 N, 20.5m ASL

Sample 6155716, 0 to 1.2m. THM=1.11%, Fines=17.62%

0 – 0.5m. Dark grey to black sandy soil. Fine to medium grained, rounded and moderately sorted.

0.5 – 1.2m. Dark yellow brown fine to medium grained sand. Rounded and poorly sorted. Common white mottling due to carbonate cement.

Sample 6155717, 1.2 to 2.0m. THM=1.17%, Fines=22.38%

Orange grading down to medium grey fine to medium grained, clayey, sand. Rounded and moderately sorted. Trace heavy minerals.

Hole YAG 14

235418 E, 5598985 N, 11.7m ASL

Sample 6155718, 0 to 1.2m. THM=0.68%, Fines=19.64%

0 – 0.2m. Black sandy soil.

0.2 – 0.6m. Yellowish grey fine medium grained sand. Well rounded and moderately sorted. Minor coarse well rounded and frosted grains. >1.0% heavy minerals.

0.6 – 1.0m Peat underlain by very clayey sand. Dark brown, dark yellowish brown and dark grey and carbonaceous. Sand is fine to medium grained, rounded and moderately sorted. Wet with strong odour of hydrogen sulphide.

Hole YAG 15

235371 E, 5601075 N, 27.7m ASL

Sample 6155719, 0 to 1.2m. THM=1.10%, Fines=14.0%

0.1m of dark grey sandy soil, underlain by mid yellowish brown to orange fine medium grained, calcareous sand. Rounded and moderately well sorted with common shell fragments.

Sample 6155720, 1.2 to 2.2m. THM=0.56%, Fines=5.37%

Light yellow fine medium grained calcareous sand. Rounded to sub-angular, well sorted and clean. Common shell fragments. >1.0% heavy minerals.

Sample 6155721, 2.2 to 3.2m. THM=0.45%, Fines=2.76%

Light yellow fine medium grained calcareous sand. Rounded to sub-angular. Common shell fragments. >2.0% heavy minerals.

Hole YAG 16

241585 E, 5602402 N, 27.8m ASL

Sample 6155722, 0 to 1.2m. THM=0.59%, Fines=10.36%

0 – 1.0m. Black grading down to yellowish grey fine medium grained sand. Rounded and well sorted. >1.0% heavy minerals.

1.0 – 1.2m. Peat and ferruginous sand. Dark yellowish brown fine medium grained sand with minor coarse, well rounded, frosted grains.

Sample 6155723, 1.2 to 2.2m. THM=0.9%, Fines=7.95%

Yellowish brown and dark orange fine and medium grained sand. Rounded and moderately well sorted. >2.0% heavy minerals.

Sample 6155724, 2.2 to 3.0m. THM=0.93%, Fines=5.82%

2.2 – 2.6m. Yellowish orange medium grained sand. Rounded and well sorted. >2.0% heavy minerals.

2.6 – 3.0m. Calcarene and calcareous sand. Yellowish orange, well sorted and sub-rounded. Abundant shell fragments. >2.0% heavy minerals.

Hole YAG 17

240717 E, 5601292 N, 22.7m ASL

Sample 6155725, 0 to 1.2m THM=0.66%, Fines=9.57%

0 – 0.5m. Black sandy soil grading down to mid grey fine medium sand. Rounded and well sorted. 1.0% heavy minerals.

0.5 – 1.2m. Dark brown fine medium sand and peat. Ferruginous cement.

Hole YAG 18

239478 E, 5600899 N, 25.7m ASL

Sample 6155726, 0 to 1.2m. THM=0.87%, Fines=7.13%

Black sandy soil grades down to mid yellowish grey fine medium sand. Clean, moderately sorted and rounded. Trace of heavy minerals.

Sample 6155727, 1.2 to 2.2m. THM=0.79%, Fines=9.02%

Very dark brown fine medium sand and peat with ferruginous cement. Strong odour of hydrogen sulphide.

Hole YAG 19

239005 E, 5600391 N, 19.2m ASL

No sample taken

0 to 1.2m. Black clayey and sandy soil at top grades down to medium grey sandy clay with abundant gypsum crystals. Sand is medium grained and poorly sorted. Minor coarse and well rounded frosted grains. Lacustrine sediment.

Hole YAG 20

239240 E, 5601768 N, 30.5m ASL

Sample 6155728, 0 to 1.2m. THM=0.80%, Fines=9.82%

0 – 1.0m. Yellowish grey fine medium sand. Rounded and moderately well sorted and clean. >1.0% heavy minerals.

1.0 – 1.2m. Dark brown peaty sand with ferruginous cement. Sand is fine medium grained and well sorted.

Sample 6155729, 1.2 to 2.2m. THM=0.88%, Fines=12.47%

Peat and sand as above down to 2.0m.

2.0 – 2.2m. Pale yellow medium grained sand. Clean, sub-rounded and moderately sorted. Becomes wet at base. Trace of heavy minerals.

Sample 6155730, 2.2 to 3.0m. THM=0.89%, Fines=9.04%

Interbedded medium grained white calcareous sand and pale greyish yellow quartz sand. Moderately sorted and angular to sub-rounded. Wet and caving. >1.0% heavy minerals.

Hole YAG 21

236688 E, 5601142 N, 35.2m ASL

Sample 6155731, 0 to 1.2m. THM=0.77%, Fines=5.37%

0 – 0.5m. Yellowish grey fine medium sand. Rounded and well sorted. >1.0% heavy minerals.

0.5 – 1.2m. Yellowish orange medium grained calcareous sand. Clean, well sorted and sub-angular. Abundant shell fragments. Trace heavy minerals.

Sample 6155732, 1.2 to 2.2m. THM=0.64%, Fines=4.28%

Light yellow fine and medium grained calcareous sand. Moderately sorted and sub-angular. >1.0% heavy minerals.

Sample 6155733, 2.2 to 3.2m. THM=0.96%, Fines=4.67%

Interbedded fine and medium grained calcareous and quartz sand. Light yellow to yellowish orange, moderately sorted and sub-angular. Abundant shell fragments in calcareous sand. Becomes wet and carbonate cemented at base. >2.0% heavy minerals.

Sample 6155734, 3.2 to 3.5m. THM=0.67%, Fines=5.87%

Calcareous sand as above. Carbonate cemented and wet. Trace of heavy minerals.

Hole YAG 22

237215 E, 5601695 N, 37.1m ASL

Sample 6155735, 0 to 1.2m. THM=0.92%, Fines=6.51%

0 – 1.0m. Black sandy soil over top 0.2m underlain by dark yellowish brown fine and medium grained sand. Rounded and poorly sorted. Minor coarse, frosted and well rounded grains. Trace of heavy minerals.

1.0 – 1.2m. Fine medium grained calcareous sand. Light yellowish orange, sub-angular and rounded.

Sample 6155736, 1.2 to 2.2m. THM=1.11%, Fines=5.12%

1.2 to 2.0m. Fine medium grained calcareous sand as above. Trace heavy minerals.

2.0 – 2.2m. Yellowish grey fine medium sand. Rounded and well sorted. Trace heavy minerals.

Sample 6155737, 2.2 to 3.2m. THM=0.79%, Fines=8.54%

2.2 – 2.3m. Fine medium sand as above.

2.3 – 3.2m. Dark yellowish brown fine and medium grained sand, minor coarse sand. Rounded to well rounded and poorly sorted with some clay cement. Coarse grains are frosted.

Hole YAG 23

238473 E, 5601368 N, 34.9m ASL

Sample 6155738, 0 to 1.2m. THM=0.99%, Fines=7.41%

0 – 0.25m. Dark grey fine medium grained sandy soil.

0.25 – 1.0m. Dark yellow brown fine medium grained sand.

Rounded and well sorted. Trace heavy minerals.

1.0 – 1.2m. Light yellow brown fine medium sand. Rounded and well sorted.

Sample 6155739, 1.2 to 2.2m. THM=1.08%, Fines=8.71%

Dark yellow brown fine and medium grained sand, minor coarse. Rounded to well rounded and poorly sorted. Coarse grains are frosted. Clayey in parts and becoming wet at the base. >2.0% heavy minerals.

Sample 6155740, 2.2 to 3.0m. THM=1.58%, Fines=3.39%

Yellowish grey fine to medium grained sand. Clean, rounded and moderately sorted and wet. >2.0% heavy minerals.