

LAKES OIL N.L.**CUTTINGS DESCRIPTIONS****WELL NAME:** Banjo No.1a **GEOLOGIST:** Ben Edwards

Interval (m)	%	Description
000-072		No samples collected, lithology interpreted from Banjo-1 well, drilled 3m NE of Banjo-1A wellsite
072-078	80	FOSSILIFEROUS SANDSTONE: off white-light yellowish brown, fine-medium, angular-subangular, common limestone fragments, trace angular-subangular translucent-opaque quartz, common fossiliferous fragments, mainly bryozoa and shelly fragments, trace ironstone cement, abundant common calcareous cement, fair visual porosity, no oil fluorescence.
	20	CALCARENITE: very light grey-medium grey, fine-medium dominantly fine, angular-subangular limestone fragments, rare subangular-rounded very fine quartz, trace dark green-black very rounded-well rounded very fine glauconite lithics, abundant coarse fossiliferous fragments mainly bryozoan and shelly fragments, minor gastropods, common medium bluish-dark bluish grey claystone matrix, common weak calcareous cement, fair visual porosity, no oil fluorescence.
078-081	50	FOSSILIFEROUS SANDSTONE: as above
	50	CALCARENITE: as above
081-084	80	CALCARENITE: as above
	10	FOSSILIFEROUS SANDSTONE: as above
	10	CLAYSTONE: medium bluish grey-dark bluish grey, very fine, moderately sticky, non-dispersive, calcareous.
084-090	90	CALCARENITE: very light grey-medium grey, fine-very coarse, angular-subangular limestone fragments, common subangular-rounded very fine quartz, trace dark green-black very rounded-well rounded very fine glauconite lithics, abundant coarse fossiliferous fragments mainly bryozoan and shelly fragments, minor gastropods, common medium bluish-dark bluish grey claystone matrix, common weak calcareous cement, fair-good visual porosity, no oil fluorescence.
	10	CLAYSTONE: as above
090-093	90	CALCARENITE: very light grey-medium grey, fine-very coarse, angular-subangular limestone fragments, common subangular-rounded very fine quartz, trace dark green-black very rounded-well rounded very fine glauconite lithics, abundant coarse fossiliferous fragments mainly bryozoan and shelly fragments, minor gastropods, common medium bluish-dark bluish grey claystone matrix, common

		weak calcareous cement, fair visual porosity, no oil fluorescence.
	10	CLAYSTONE: as above
093-096	100	CALCARENITE: very light grey-medium dark grey, very fine-fine dominantly fine, angular-rounded limestone fragments, common subangular-rounded translucent-milky very fine quartz, trace dark green-black very rounded-well rounded very fine glauconite lithics, abundant coarse fossiliferous fragments mainly bryozoan and shelly fragments, minor gastropods, no visible matrix, abundant weak calcareous cement, good visual porosity, no oil fluorescence.
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		translucent-opaque quartz, common fossiliferous fragments, mainly bryozoa and shelly fragments, trace ironstone cement, abundant common calcareous cement, fair visual porosity, no oil fluorescence.
	20	CALCARENITE: very light grey-medium grey, fine-medium dominantly fine, angular-subangular limestone fragments, rare subangular-rounded very fine quartz, trace dark green-black very rounded-well rounded very fine glauconite lithics, abundant coarse fossiliferous fragments mainly bryozoan and shelly fragments, minor gastropods, common medium bluish-dark bluish grey claystone matrix, common weak calcareous cement, fair visual porosity, no oil fluorescence.
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	10	CLAYSTONE: as above
100-102	90	CALCARENITE: off white-very light grey, poorly sorted, fine-very coarse angular-subangular, abundant angular-subangular off white-light grey crystalline limestone fragments, rare translucent-milky subangular-subrounded fine-very coarse quartz, trace rounded-well rounded very fine glauconite, common fossiliferous material; bryozoan echinoid spines shelly fragments gastropod, common bluish grey-dark bluish grey claystone matrix, weak calcareous cement, fair visual porosity, no oil fluorescence.
	10	CLAYSTONE: bluish grey-dark bluish grey, very fine, moderately sticky, calcareous, moderately dispersive, non-fissile.
102-105	90	CALCARENITE: off white-very light grey, moderately sorted, fine-very coarse dominantly fine, subangular-subrounded, abundant off white-light grey subangular-subrounded fine-medium crystalline limestone fragments, common translucent subrounded-rounded medium-coarse

		quartz with occasional iron staining, trace dark green-black rounded-well rounded very fine glauconite, trace orange lithics, common fossiliferous material; bryozoan echinoid spines shelly fragments gastropod, common bluish grey-dark bluish grey claystone matrix, weak calcareous cement, trace ironstone cement, fair visual porosity, no oil fluorescence.
	10	CLAYSTONE: as above
105-108	80	CALCARENITE: off white-very light grey, moderately sorted, fine-very coarse dominantly fine, angular-subrounded, abundant off white-light grey subangular-subrounded fine-medium crystalline limestone fragments, common translucent subrounded-rounded medium-coarse quartz with occasional iron staining, common dark green-black rounded-well rounded very fine glauconite, trace orange lithics, common fossiliferous material; bryozoan echinoid spines shelly fragments gastropod, common bluish grey-dark bluish grey claystone matrix, weak calcareous cement, trace ironstone cement, poor-fair visual porosity, no oil fluorescence.
	20	CLAYSTONE: as above
108-114	70	CALCARENITE: very light grey-light yellowish grey, moderately sorted, fine-medium dominantly fine, subangular-rounded, abundant very light grey-light yellowish grey subangular-rounded fine-medium limestone fragments, common translucent subrounded-rounded medium-coarse quartz with occasional iron staining, trace dark green-black rounded-well rounded very fine glauconite, common fossiliferous material; bryozoan echinoid spines shelly fragments gastropod, common bluish grey-dark bluish grey claystone matrix, weak calcareous cement, trace ironstone cement, poor visual porosity, pale yellow mineral fluorescence, no oil fluorescence.
	30	CLAYSTONE: bluish grey-dark bluish grey, very fine, very sticky, calcareous, non-dispersive, non-fissile.
114-120	90	CALCARENITE: very pale yellow-pale yellowish grey, moderately sorted, fine-medium dominantly fine, subangular-rounded, common very pale yellow-pale yellowish grey subangular-rounded fine-medium limestone fragments, trace translucent subrounded-rounded medium quartz, trace dark green-black rounded-well rounded very fine glauconite, dominant fossiliferous material; bryozoan echinoid spines shelly fragments gastropod, trace bluish grey-dark bluish grey claystone matrix, weak calcareous cement, fair visual porosity, pale yellow mineral

		fluorescence, no oil fluorescence.
	10	CLAYSTONE: as above
120-126	70	CALCARENITE: pale yellow-light yellowish brown, moderately sorted, fine-medium dominantly fine, angular-subrounded, abundant off white-pale yellow subangular-subrounded fine-medium limestone fragments, trace translucent subrounded-rounded medium quartz with occasional iron staining, abundant fossil fragments; bryozoa echinoid spines shells gastropod, trace light bluish grey-bluish grey claystone matrix, weak calcareous cement, fair visual porosity, pale yellow mineral fluorescence, no oil fluorescence.
	30	CLAYSTONE: light bluish grey-bluish grey, very fine, very sticky, weakly calcareous, non-dispersive, non-fissile.
126-129	80	CALCARENITE: pale yellow-light yellowish brown, poorly sorted, fine-medium dominantly fine occasionally very coarse, angular-rounded, abundant occasionally very coarse off white-pale yellow subangular-subrounded fine-medium limestone fragments, trace translucent subrounded-rounded medium quartz with occasional iron staining, abundant occasionally very coarse fossil fragments; bryozoa echinoid spines shells gastropod, trace light bluish grey-bluish grey claystone matrix, weak-very strong calcite cement, fair visual porosity, pale yellow mineral fluorescence, no oil fluorescence.
	20	CLAYSTONE: as above
129-132	70	CALCARENITE: : very light grey-light bluish grey, well sorted, fine-medium dominantly fine, angular-rounded, abundant off white-pale yellow subangular-subrounded fine-medium calcareous fragments, trace translucent subrounded-rounded fine quartz with occasional iron staining, trace very fine rounded-well rounded glauconite, common fossil fragments; bryozoa echinoid spines shells gastropod, weak-very strong calcite cement, poor inferred porosity, pale yellow mineral fluorescence, no oil fluorescence.
	30	CLAYSTONE: as above
132-135	20	CALCARENITE: as above
	80	MARLSTONE: light yellowish grey-light brownish grey, fine-very fine, very sticky, very dispersive, moderately silty, calcareous, non fissile.
135-138	20	LIMESTONE: very light grey-light bluish grey, moderately sorted, subangular-subrounded, fine-medium, dominant very light grey-light bluish grey crystalline limestone fragments, common fossiliferous fragments; bryozoa echinoid spines shells gastropods, strong calcite

		cement, clast supported, poor visual porosity, pale yellow mineral fluorescence, no oil fluorescence.
	80	MARLSTONE: light yellowish grey-light brownish grey, fine-very fine, moderately silty, rare translucent very fine-fine quartz, trace very fine-fine glauconite, soft, very sticky, very dispersive, calcareous, non fissile.
138-144	20	LIMESTONE: as above
	80	MARLSTONE: light yellowish grey-light brownish grey, fine-very fine, very silty, rare translucent very fine- fine quartz, trace very fine-fine glauconite, common fossiliferous fragments; bryozoa echinoid spines shells gastropods, soft, very sticky, very dispersive, calcareous, non fissile.
144-147	10	LIMESTONE: as above
	90	MARLSTONE: as above
147-150	10	LIMESTONE: as above
	50	MARLSTONE: as above
	40	SANDSTONE: off white-pale yellow, well sorted, subangular-rounded fine, dominant translucent subangular-rounded fine quartz with occasional iron staining, brown silty matrix, no visible cement, fair inferred porosity, no oil fluorescence.
150-153	30	LIMESTONE: pale grey-light bluish grey, poorly sorted, very fine-medium, angular-subangular, dominantly crystalline limestone, common fossiliferous material mainly bryozoa with shells, bluish grey marlstone matrix, strong calcite cement in part, fair visual porosity, pale yellow mineral fluorescence, no oil fluorescence.
	50	MARLSTONE: light yellowish grey-light brownish grey, fine-very fine, moderately silty, common translucent very fine- fine quartz, trace very fine-fine glauconite, common fossiliferous fragments; mainly bryozoa with shells gastropods, very soft, very sticky, very dispersive, calcareous, non fissile.
	20	SANDSTONE: as above.
153-156	10	LIMESTONE: as above
	50	MARLSTONE: as above
	30	SANDSTONE: off white-pale yellow, well sorted-very well sorted, fine, dominant rounded-well rounded translucent-opaque quartz, common rounded-well rounded black lithics, trace angular orange lithics, trace pyrite, no visible matrix, no visible cement, good inferred porosity, no oil fluorescence.
156-162	20	LIMESTONE: as above
	70	MARLSTONE: as above
	10	SANDSTONE: as above

162-165	40	LIMESTONE: off white-medium light grey, very fine-fine, moderately sorted, subangular-subrounded, common crystalline limestone, abundant fossiliferous fragments; mainly bryozoa with shells gastropods, light grey-light bluish grey marlstone matrix, strong calcite cement in part, poor visual porosity, no oil fluorescence.
	50	MARLSTONE: light yellowish grey-light brownish grey, fine-very fine, moderately silty, rare translucent very fine-fine quartz, trace very fine-fine glauconite, common fossiliferous fragments; mainly bryozoa with shells gastropods, very soft, very sticky, very dispersive, calcareous, non fissile.
	10	SANDSTONE: off white-pale yellow, well sorted-very well sorted, fine, dominant rounded-well rounded translucent-opaque quartz, common rounded-well rounded black lithics, trace angular orange lithics, trace pyrite, no visible matrix, no visible cement, good inferred porosity, no oil fluorescence.
165-168	40	LIMESTONE: off white-medium light grey, very fine-fine, moderately sorted, subangular-subrounded, common crystalline limestone, trace subrounded-rounded fine quartz with occasional iron staining, trace rounded-well rounded black lithics, abundant fossiliferous fragments; mainly bryozoa with shells gastropods, light grey-light bluish grey marlstone matrix, strong calcite cement, poor visual porosity, pale yellow mineral fluorescence, no oil fluorescence.
	40	MARLSTONE: as above
	20	CLAYSTONE: off white-very light grey, fine-very fine, moderately arenaceous, dispersive, moderately calcareous, moderately sticky, non-fissile.
168-171	40	LIMESTONE: as above
	40	MARLSTONE: very light grey-medium light grey, very fine-fine, silty, trace quartz, trace black lithics, common fossiliferous fragments; mainly bryozoa with shells gastropods, rare pyrite, very soft, very sticky, very dispersive, calcareous, non fissile.
	20	SILTSTONE: light grey-light yellowish brown, fine-very fine, subrounded-rounded, abundant translucent very fine rounded-well rounded quartz, trace black lithics, arenaceous, no visible cement, poor inferred porosity, no oil fluorescence.
171-174	30	LIMESTONE: as above
	60	MARLSTONE: as above
	10	SILTSTONE: as above
174-183	20	LIMESTONE: as above

	60	MARLSTONE: as above
	20	SILTSTONE: very light yellow-light yellowish brown, very fine-fine, subrounded-rounded, common very-fine-fine quartz, trace black lithics, moderately arenaceous, no visible cement, poor inferred porosity, no oil fluorescence.
183-186	10	LIMESTONE: as above
	40	MARLSTONE: very light grey-medium light grey, very fine-fine, silty, common quartz, trace black lithics, common fossiliferous fragments; mainly bryozoa with shells gastropods, rare pyrite, very soft, arenaceous, very sticky, very dispersive, moderately calcareous, non fissile.
	20	SILTSTONE: as above
	30	SANDSTONE: white-very light yellow, subrounded-well rounded, well sorted, fine, dominant translucent-opaque fine quartz with occasional iron staining, trace very fine well rounded black lithics, pale yellow-light yellowish brown silty matrix, trace weak calcareous cement, fair inferred porosity, no oil fluorescence.
186-189	30	LIMESTONE: very light bluish green-light green, subrounded-rounded, very fine-fine, dominant crystalline limestone, rare fine-very fine translucent-opaque quartz, trace very fine orange and black lithics, no visible matrix, strong calcareous cement, poor visible porosity, pale yellow mineral fluorescence, no oil fluorescence.
	50	MARLSTONE: as above
	10	SILTSTONE: as above
	10	SANDSTONE: as above
189-198	60	MARLSTONE: very light bluish grey-medium bluish grey, very fine-fine, common quartz, rare black lithics, abundant fossiliferous fragments; mainly bryozoa with shells gastropods, rare pyrite, very soft, arenaceous, moderately sticky, very dispersive, calcareous, non fissile.
	20	SANDSTONE: white-very light yellow, subrounded-well rounded, well sorted, fine, dominant translucent-opaque fine quartz with occasional iron staining, common very fine rounded-well rounded dark green-black glauconite, trace pyrite, pale yellow-light yellowish brown silty matrix, trace weak calcareous cement, fair inferred porosity, no oil fluorescence.
	20	SILTSTONE: very light yellow-light yellowish brown, very fine-fine, subrounded-rounded, common very-fine-fine quartz, trace rounded-well rounded dark green-black glauconite, moderately arenaceous, no visible cement, poor inferred porosity, no oil fluorescence.
198-201		Sample dominated by cement
201-204	70	MARLSTONE: very light bluish grey-medium bluish grey,

		fine-very fine, silty, trace quartz, common fossiliferous fragments; bryozoa gastropod echinoid spines shells, soft, dispersive, moderately calcareous, sub-fissile.
	30	SANDSTONE: white-very light yellow, subrounded-well rounded, well sorted, fine, dominant translucent-opaque subrounded-well rounded quartz, trace dark green-black very fine well rounded glauconitic nodules, rare pyrite, pale yellow-light yellowish brown silty matrix, trace weak calcite cement, fair inferred porosity, no oil fluorescence.
204-207	90	MARLSTONE: as above
	10	SANDSTONE: as above
207-210	80	MARLSTONE: as above
	20	SILTSTONE: medium brownish grey-medium brown, very fine-fine, moderately sorted, moderately arenaceous, common translucent-opaque very fine-fine quartz, trace very fine black lithics, poor inferred porosity, no oil fluorescence.
210-216	90	MARLSTONE: very light bluish grey-medium bluish grey, fine-very fine, slightly silty, rare limestone lithics with strong calcite cement, rare pyrite, trace quartz, common fossiliferous fragments; bryozoa gastropod echinoid spines shells, soft, dispersive, moderately calcareous, sub-fissile.
	10	SILTSTONE: as above
216-219	100	MARLSTONE: as above
219-222	80	MARLSTONE: as above
	20	SILTSTONE: medium brownish grey-medium brown, very fine-fine, moderately sorted, moderately arenaceous, rare translucent-opaque very fine-fine quartz, trace very fine black lithics, trace pyrite, poor inferred porosity, no oil fluorescence.
222-225	100	GREENSAND: medium green-dark green, medium-coarse dominantly medium, subrounded-well rounded dominantly well rounded, common rounded-well rounded translucent-opaque medium-coarse quartz with occasional iron staining, abundant dark green-black rounded-well rounded medium-coarse glauconite nodules, trace fossiliferous material mainly bryozoa, trace pyrite, rare off white-very light grey claystone matrix, weak calcite cement, fair-good inferred porosity, dull yellow mineral fluorescence, no oil fluorescence.
225-229.6	10	GREENSAND: as above
	90	CALCAREOUS SANDSTONE: off white-very light yellow, fine-medium, well sorted, subrounded-rounded dominantly rounded, abundant rounded-well rounded fine translucent-opaque quartz, common dark green-black glauconite, common fossiliferous material mainly bryozoa,

		common white claystone matrix, trace pyrite, moderate calcite cement, fair visual porosity, bright yellow mineral fluorescence, no oil fluorescence.
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