

Stratigraphic Column No: Ak-14

Grid Reference: Top

Bottom

NZMS 260 S16

Region: Aotea-Kawhia

E: 2700010

Location: Honikiwi Road side exposure

N: 6334249

AK-14

NZMS 260 Sheet: S16/000342

Page 1 of 2

Author: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
Lwh	Aotea	0-50	Kihi			<p>fossiliferous</p> <p>Abundant scatt. pectins, dentalium, fiaballum, barnacles</p> <p>Pectins and other bivalve fragments</p> <p>extensively bioturbated</p> <p>burrowed</p>	<p>C1</p> <p>S4</p>	<p>4-5</p> <p>3-4</p> <p>1-2</p>	<p>GLAUCONITIC SANDSTONE: Dark greenish-grey, weakly to mod. cemented, fine to medium variably calc. muddy fine to medium sandstone with abundant glauconite (content > 50%), fossiliferous, burrowed, abundant scattered pectins, barnacles, solitary corals and dentalium.</p> <p>GRITTY SANDSTONE: Greenish grey, mod. cemented. 0.3-1.2 m crude bding apparent from relatively resistant beds, scattered rounded-subrounded granule size clasts in places concentrated in thin beds and occ. infilling the burrows, extensively bioturbated evident from mottled texture, abun. glauconite pellets of fine to medium sand grade.</p> <p>MUDDY SANDSTONE: Dull blue-grey, mod. cemented, massive to faint horizontal bedding discernible in places, common exfoliation weathering, muddy fine sandstone, extensively bioturbated, disseminated glauconite pellets.</p> <p>CALCAREOUS SILTY SANDSTONE: Dull grey to bl-grey, mod. well cemented massive, slightly friitery in places, fine calcareous silty sandstone, bioturbated, grades upsection into muddy sandstone.</p>	

AK-14

2 of 2



Stratigraphic Column No: C-25

Grid Reference:

NZMS 260 S16

Region: King Country/Waitomo

E: 2696921

Location: Abandoned basement quarry, East of Honikiwi

N: 6337506

C-25

NZMS 1 Sheet: S16

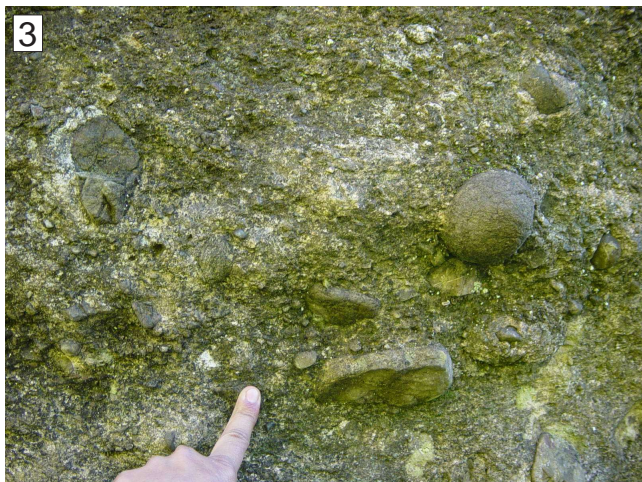
Page 1 of 1 **Author:** C. Nelson
Modified: A. Tripathi

1 of 2

Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
I. Lwh	Aotea	0-70	Aotea Sandstone				S2 S4 C1 L3			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Muddy sl. glauc. f. calc. sst.									
Ld	Aotea		Aotea Sandstone				S2 S4 C1 L3			Fine glauc. calc. sst.
	Weath. indent., ff-hash in well cem. glauc. s. lst. for 15-22 cm grad. down into horiz. of limonite pyrite concrets. and tubules.									
	Orahiri		TA				L3			C/gr. glauc. slabby lst. showing pseudobbed. app. where weathered.
	Waimai		Waitetuna Lst				L1			Rel. mass., irreg. surf. pebbly lsts. w. pebbs. to 10 cm near base becoming less abund. upwrds, algal encrustaceans.
	Kihi		Aotea Sandstone				L3			Mass.-sl. incip. seams. Incip.-mod. seams, flags av. 7.5 cm, lge. pebbs. rare, common grit and v.c. sand. Pebbs. av. 7.5 cm in irreg. incip. seamed lst., flags av. 5 cm, algal encrustn. common.
	Kihi		Aotea Sandstone				L3			Mass.-incip. seams, 5-7.5 cm flags, v. occ. sm. pebbs. to 1.3 cm seen. 15 cm pebb. band as w. ind., pebbs. av. 2.5 cm, max. 10 cm, algae present. Incip.-mod. seams, slabby app., scatt. pebbs. av. 2 cm, v. poorly sorted. Pebbs. to 15 cm common in mass., irreg. surf. s. lst., algae, grit-f. pebbs. typical.
	Kihi		Aotea Sandstone				L3			Fossiliferous hash
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Mass.-incip. seams, 5-7.5 cm flags, v. occ. sm. pebbs. to 1.3 cm seen. 15 cm pebb. band as w. ind., pebbs. av. 2.5 cm, max. 10 cm, algae present. Incip.-mod. seams, slabby app., scatt. pebbs. av. 2 cm, v. poorly sorted. Pebbs. to 15 cm common in mass., irreg. surf. s. lst., algae, grit-f. pebbs. typical.
	Aotea		Aotea Sandstone				L3			Mass.-sl. incip. seams. Incip.-mod. seams, flags av. 7.5 cm, lge. pebbs. rare, common grit and v.c. sand. Pebbs. av. 7.5 cm in irreg. incip. seamed lst., flags av. 5 cm, algal encrustn. common.
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Fossiliferous hash
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Mass.-incip. seams, 5-7.5 cm flags, v. occ. sm. pebbs. to 1.3 cm seen. 15 cm pebb. band as w. ind., pebbs. av. 2.5 cm, max. 10 cm, algae present. Incip.-mod. seams, slabby app., scatt. pebbs. av. 2 cm, v. poorly sorted. Pebbs. to 15 cm common in mass., irreg. surf. s. lst., algae, grit-f. pebbs. typical.
	Aotea		Aotea Sandstone				L3			Mass.-sl. incip. seams. Incip.-mod. seams, flags av. 7.5 cm, lge. pebbs. rare, common grit and v.c. sand. Pebbs. av. 7.5 cm in irreg. incip. seamed lst., flags av. 5 cm, algal encrustn. common.
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Fossiliferous hash
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Mass.-incip. seams, 5-7.5 cm flags, v. occ. sm. pebbs. to 1.3 cm seen. 15 cm pebb. band as w. ind., pebbs. av. 2.5 cm, max. 10 cm, algae present. Incip.-mod. seams, slabby app., scatt. pebbs. av. 2 cm, v. poorly sorted. Pebbs. to 15 cm common in mass., irreg. surf. s. lst., algae, grit-f. pebbs. typical.
	Aotea		Aotea Sandstone				L3			Mass.-sl. incip. seams. Incip.-mod. seams, flags av. 7.5 cm, lge. pebbs. rare, common grit and v.c. sand. Pebbs. av. 7.5 cm in irreg. incip. seamed lst., flags av. 5 cm, algal encrustn. common.
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Fossiliferous hash
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Mass.-incip. seams, 5-7.5 cm flags, v. occ. sm. pebbs. to 1.3 cm seen. 15 cm pebb. band as w. ind., pebbs. av. 2.5 cm, max. 10 cm, algae present. Incip.-mod. seams, slabby app., scatt. pebbs. av. 2 cm, v. poorly sorted. Pebbs. to 15 cm common in mass., irreg. surf. s. lst., algae, grit-f. pebbs. typical.
	Aotea		Aotea Sandstone				L3			Mass.-sl. incip. seams. Incip.-mod. seams, flags av. 7.5 cm, lge. pebbs. rare, common grit and v.c. sand. Pebbs. av. 7.5 cm in irreg. incip. seamed lst., flags av. 5 cm, algal encrustn. common.
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Fossiliferous hash
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Mass.-incip. seams, 5-7.5 cm flags, v. occ. sm. pebbs. to 1.3 cm seen. 15 cm pebb. band as w. ind., pebbs. av. 2.5 cm, max. 10 cm, algae present. Incip.-mod. seams, slabby app., scatt. pebbs. av. 2 cm, v. poorly sorted. Pebbs. to 15 cm common in mass., irreg. surf. s. lst., algae, grit-f. pebbs. typical.
	Aotea		Aotea Sandstone				L3			Mass.-sl. incip. seams. Incip.-mod. seams, flags av. 7.5 cm, lge. pebbs. rare, common grit and v.c. sand. Pebbs. av. 7.5 cm in irreg. incip. seamed lst., flags av. 5 cm, algal encrustn. common.
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Fossiliferous hash
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
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	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
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	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
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	Aotea		Aotea Sandstone				C1			Fine glauc. calc. sst.
	Aotea		Aotea Sandstone				L3			Fossiliferous hash
	Aotea		Aotea Sandstone				S2			Muddy sl. glauc. f. calc. sst.
	Aotea		Aotea Sandstone				S4			Blue/grey muddy v.f. calc. ssts., mst. horizons, frittered surf., poorly exposed.
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	Aotea		Aotea Sandstone				L3			Mass.-sl. incip. seams. Incip.-mod. seams, flags av. 7.5 cm, lge. pebbs. rare, common grit and v.c. sand. Pebbs. av. 7.5 cm in irreg. incip. seamed lst., flags av. 5 cm, algal encrustn. common.
	Aotea		Aotea Sandstone							

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Stratigraphic Column No: C-28
Region: King Country/Waitomo
Location: Te Raumauku, south of Honikiwi

Grid Reference:
E: 2695027
N: 6331981

NZMS 260 S16

C-28

NZMS 1 Sheet: S16

Page 1 of 1 **Author:** C. Nelson
Modified: A. Tripathi

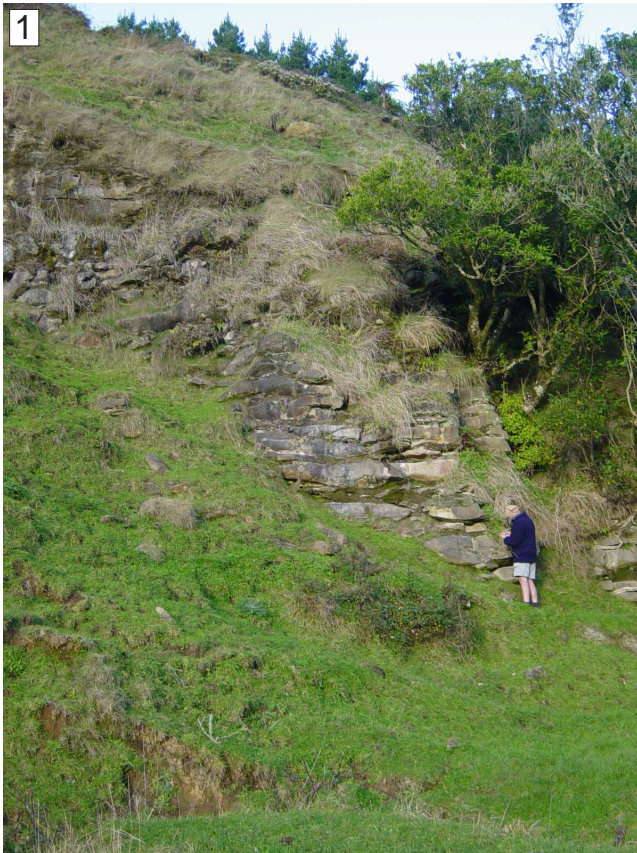
1 of 2

Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
Ld	Orahiri	0-100	Wt Sst	eroded top: G			S1			Sl. glauc. calc. sst., green-grey colour, smooth, tends friitery.
				G			L6		Mass. ripply-incip. seamed calc. sst. (s.lst.), rare oyst., grad. contacts.	
	Te Anga	0-100	Orahiri Limestone	G					Wide flagged, av. 10-15 cm, lst. with rel. prominent sand seams.	
				G				-76 m, incip. oyst. plus ff-material. 75-76 m - highly irreg. and thick mod. dev. seams, vert. jointing, pseudo-knobly appearance.		
	Aotea	Kihi	0-100	Te Anga Limestone	G					Flaggy lst., flags av. 10-13 cm w. incip. sand seams above 65.5 m becoming mod.-well developed, sl. wavy higher with var. flags 5-10 cm.
					G	Oysters		C1		64.5-65 m - incip.- well dev., sl. irreg. seams, non-glauc. ~ 65 m, mod. packed oyst. band, oyst. haphaz., disart. and art., rel. sharp top and bottom. 61.6-64.6 m - sl. glauc. slabby lst., flags av. 7.5 cm, occ. pseudobdded., after 64.3 m, ff-hash zone with abund. fine bivalve debris, occ. pebb. av. 1 cm, bone. 55-61.6 m - glauc. calc. sst. as smooth faced "cliff", occ. bivalve mat. and limonite borings at top, sst. bl./gr., fritt., occ. limonite (pyrite) concrets. to 7.5 cm size, elliptical shapes.
Aotea	Kihi	0-100	Aotea Sandstone	G		Abundant fossiliferous hash			5	
				G			S4		45.75-55 m - poorly exposed, app. sl. glauc. s. msts.	
Aotea	Waimai	0-100	Aotea Sandstone	G					4	B/gr. fine calc. ssts., muddy, fritt. surface., weath., poorly exposed.
				G			L4		Slabby, mod.-well dev. seams, flags gen. wide, av. 12.5 cm, mod. glauc., seams wide and sandy and slightly irregular.	
Glen Massey	Ahirau	0-100	Whaingaroa Silt	G	Weathering break, slight weathering indent		S4		2-3	16-17 m, tends friitery in fine glauc. sst., occ. borings evid., top 2.5 cm better cemented.
				G	Weathering break		S6		Mass.-incip. ripply smooth sl. glauc. calc. muddy sst. (s. lst.) as small bluff.	
Dunphail		0-100			Turitea Stream					Bl/gr. sandy mst., friitery weathering.

old
 lime
 silt
 sand
 gravel

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Stratigraphic Column No: C32

Grid Reference:

NZMS 260 S16

Region: King Country/Waitomo

E: 2696320 - 2696142

Location: Abandoned limestone quarry, northeast of Waitomo

N: 6329200 - 6329388

C-32

NZMS 1 Sheet: S16

Page 1 of 2 **Author:** C. Nelson

Modified: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
Lw	Otorohanga	100 90 80 70 60 50 40 30 20 10 0	Otorohanga Limestone	Cont. on pg 2 Pakeho Lst	Gradual contact over 46 cm		L2-L3	12 11 10 9 8 7		Mass.-incip. seamed lst., sl. sandy. Crossbed 12° to ENE, well dev. flags 5-10 cm.
	Pakeho		Pakeho Lst							Flaggy lst., flags mod.-well dev., 5-15 cm wide, sep. by wide (to 1.3 cm) seams. Complexly cross-bedded at a no. of levels, is on a lge. scale and shows both planar and trough vars., var. current dir., cosets of 5-15 cm, sep. by horiz. flags minor channeling.
Ld	Waitomo	60 50 40 30 20 10 0	Waitomo Sst	Te Anga Lst	Gradual contact	Scattered oysters	S1	7 6 5 & 6 4 3-4		12° to NE seen.
	Orahiri		Orahiri Lst							Inv. seams 2.5-7.6 cm apart, sl. irreg., seams wide near base, weath. in, to 2.5 cm wide. Calc. sst. - s. lst.
I. Lwh	Aotea	10 0	Aotea Sandstone	Waitetuna Lst	Actual contact unseen	Bivalve frags.	L6 L4 C1	5 & 6 2		Mass. calc. sst., com. leached and w., forms smooth connecting slope between two lst. Glauc. content mod., decr. upwards as does sand content. Ssts. fine throughout.
	Kihi		Kihi							25 cm hard s. lst., 10 cm calc. sst., passes into flaggy lst. 7.6-15.2 cm flaggy lst., irreg. seams, sl. sandy, glauc. nearer top. Pure micritic lst., irreg. seams 7.6-15.2 cm. Oyster band, disartic., haphaz., 10 cm frags., incip. irreg. seams. Scatt. oyst. horizon, 45.7 cm scatt. frags., 53.5 cm occ. lge. frags, 38 cm scatt. oysts. Sl. glauc. lst., mass. Mass.-incip. lge. flagged lst., sl.-mod. glauc., occ. pebbs. near base, borings infilled w. glauc. lst. into underlying gsd.
I. Lwh	Waimai	10 0	Waimai	Waimai		Bivalve frags.	S4 S4-L4	3-4		Immed. below 48.2 m have calc. gsd., mass., well cem. for 30.5 cm, less cem. and forms strong w. indent. 47-48 m, base marked by 5-7.6 m band of biv., par. bed., trace ff., pebbs. to 5 cm av., 0.95 cm scatt. thr.out, biv. frags. scatt., com. in streaks & lenses, calc. worm tubes, cem. top shows lge. borings infil. w. overlying lst., biv. band varies in dist. below contact along strike, also glauc. content, overlying lst. shows marked overhang. Grad. down into w. mod. gl. calc. muddy sst., less ff. mat., sl. fritt., occ. borings, glauc. content decreases. dnwd. Passes down into bl/gr fritt. m. v.f. sst. and v. s. msts, burrowed, sl. glauc.
	Aotea		Aotea							Sl. s. burrowed muddy lst., plnk. foram. rich. Blue/grey s. mst. Sl.-v.s. lst., muddy, glauc. and pebbly (av. 0.6 cm) at base, bivalve frags. common.
Mesozoic basement rocks.										

Stratigraphic Column No: C32

Grid Reference:

NZMS 260 S16

Region: King Country/Waitomo

E: 2696320 - 2696142

Location: Abandoned limestone quarry,
northeast of Waitomo

N: 6329200 - 6329388

C-32

NZMS 1 Sheet: S16

Page 2 of 2 **Author:** C. Nelson
Modified: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
Lw	Otorohanga Pakeho	110 120	Otorohanga Limestone Pakeho Lst Piopio Lst				L3			<p>Well flagged 15-20 cm lst.</p> <p>Seams 2.5-7.6 cm apart, seams typ. wide, to 1.2 cm, sl. cavernous w.</p> <p>Flags 2.5-7.6 cm, wide seams, c. shell mat. appar.</p> <p>1.22 m more mass. micritic lst., dense, contacts not well flagged Cross-bedded, flaggy, 10o to NW.</p> <p>Flaggy lst., 5-7.6 cm.</p> <p>Irr. cav. weath., high cement content.</p> <p>Wide seamed, lamin., flaggy lst.</p> <p>Muddy glauc. unit, 12.7 cm glauc. lst., 3.8 cm slst., 15 cm glauc. lst. 1.2 cm slst.</p>

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2 of 2

1



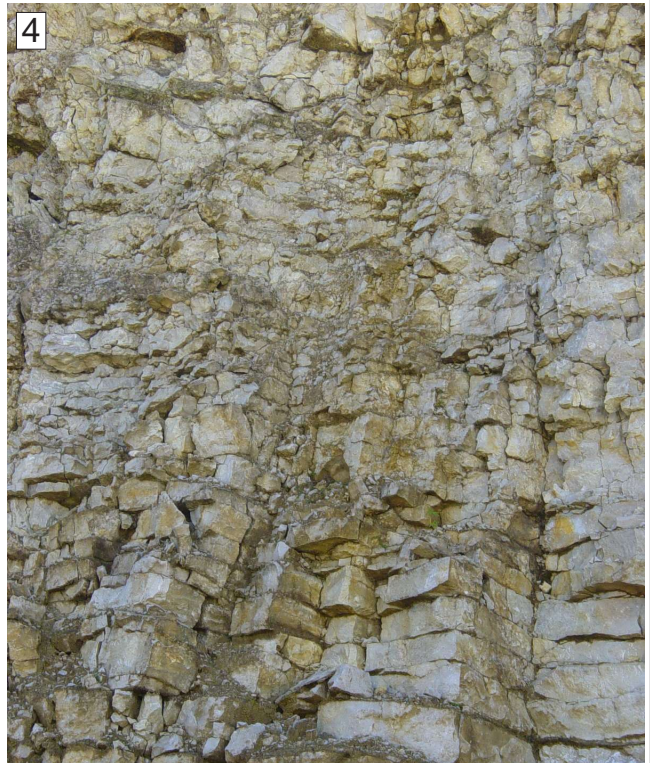
2



3



4



5



6



Stratigraphic Column No: C-121

Grid Reference:

NZMS 260 S16

Region: King Country/Waitomo

E: 2707769

Location: Ngapeke Road, north of Rangitoto

N: 6320097

C-121

NZMS 1 Sheet: S16

Page 1 of 1

Author: C. Nelson (after Glennie 1956)

Modified: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
e. Lwh	WCM	0 to 40	WCM							Mesozoic basement rocks.
	Glen Massey Dunphail		Or Lst? OrB		Shell bed, molluscs common		S6			4.6 m coal seam. Carbonaceous mst. Blue-grey calc. mst.
Ld	Orahiri						L1-L3			Flaggy slightly pebbly lst. (after Glennie, 1956)

mud
clay
silt
sand
gravel

Stratigraphic Column No: C-121

Grid Reference:

NZMS 260 S16

Region: King Country/Waitomo

E: 2707769

Location: Ngapeke Road, north of Rangitoto

N: 6320097

C-121

NZMS 1 Sheet: S16

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Author: C. Nelson (after Glennie 1956)

Modified: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
e. Lwh	WCM	0 to 40	WCM							
	Glen Massey Dunphail		Or Lst? Or B							
Ld	Orahiri						L1-L3			(after Glennie, 1956) Flaggy slightly pebbly lst.
						Shell bed, molluscs common	S6			Blue-grey calc. mst.
										4.6 m coal seam.
										Carbonaceous mst.
										Mesozoic basement rocks.

mud
silt
clay
siltstone
claystone
sand
gravel

Stratigraphic Column No: C-130

Grid Reference:

NZMS 260 S16

Region: King Country/Waitomo

E: 2702573

Location: Mangaokewa Stream, SH30, south of Te Kuiti

N: 6311007

C-130

NZMS 1Sheet: S16

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Author: C. Nelson
Modified: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
Po	Mahoenui	0-70	Mahoenui Group							<p>Ignimbrites.</p> <p>Flaggy 10-13 cm lst.</p> <p>18 cm shale unit.</p> <p>Flaggy 5-10 cm lst.</p> <p>23 cm shale unit.</p> <p>Flaggy 5-10 cm lst., well developed flags.</p> <p>1.5 m blue-grey mst., friitery weathered appearance.</p> <p>Pure 5-10 cm flagged lst.</p> <p>Blue-grey. mst.</p> <p>Muddy lst., var. appearance, top 30.5 cm very hard.</p>
										<p>1.5 m blue-grey massive calc. mst.</p> <p>Pure flaggy 7.6-15 cm lst.</p> <p>Narrow shale band.</p> <p>Flags 7.6-15 cm.</p> <p>60 cm sandy lsts. band, sharp contacts.</p> <p>Flaggy 2.5-10 cm lst.</p> <p>Massive sandy lst. band, sharp contacts.</p> <p>Pure 2.5-7.6 cm flaggy lst., very scattered pebbles, occ. iron-stained pyrite concretions.</p>
Lw	Otorohanga	0-40	Otorohanga Limestone (Otc)				L8			<p>Cross-beds, dip 10° N.</p> <p>Incip. seamed 2.5-7.6 cm lst., occ. ff., v. occ. gwk pebbs. 1.3-12.7 cm size.</p> <p>Incip.-mod. flaggy av. 5 cm lst., gritty-pebbly, esp. 19.5-20.7 m, pebbles to 5 cm size, no def. pebble bands, pebbles av. 0.6 cm.</p> <p>Mass. sandy lst., occ. incip. bedded. app., ff in parts, rare large. oysters.</p>
										<p>Weathered, smooth sloping (40°) calc. fine sst., var. width along strike (e.g., to 30 cm).</p> <p>Sparsely gritty 7.6-10 cm flaggy lst., seams to 1.3 cm thick with sand and glauc., incipient-mod. seam development, limonite pyrite.</p> <p>Cross-beds, dip 10° N.</p>
Ld	Orahiri	0-10	Orahiri Lst (OraB)		Sharp contact, slightly irreg.		S1			<p>Incip.-mod. flaggy av. 5 cm lst., gritty-pebbly, esp. 19.5-20.7 m, pebbles to 5 cm size, no def. pebble bands, pebbles av. 0.6 cm.</p>
										<p>Sl. pebbly lst., pebbs. 0.3-0.6 cm size, occ. lger. in mass.-incip. seamed s. lst.</p> <p>V. pebbly basal portions, pebbles subrounded.-rounded. gwk., pebbs. 0.32-60 cm+, pebbles >matrix at base, ff-oysters to 30 x 23 cm size, art. and disart., sharp irregular contact.</p> <p>Mesozoic basement rocks.</p>

mud
lime
silt
sand
gravel

Stratigraphic Column No: 94-24

Grid Reference:

NZMS 260 S16

Region: Te Kuiti

E: 2701400

Location: Old Beros quarry, Te Kuiti

N: 6315200

94-24

NZMS 260 Sheet: S16/014152

Page 1 of 2 **Author:** A.S. Anastas
Modified: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description
Mahoenui Group	Mahoenui Group	0-90	Mahoenui Group			<p>Arenicolites, Scolithos</p>	L8			<p>Vertical burrows containing pellets. Cross-bedded lst. Laminated grey-green shale.</p>
										<p>Argillaceous lst./interbedded shale and lst., shale % decreases upwards, beds undulatory, shales 1-1.5 cm, lsts. 7-12 cm.</p>
Otorohanga Limestone	Otorohanga Limestone	0-60	Otorohanga Limestone			<p>Large echinoid frags. Fossiliferous shale</p>	L4-Z1	2		<p>Tempestite, sharp base.</p>
										<p>Cross-bedded lst., formset preservation, 7-10 cm beds.</p>
Orahiri Formation	Orahiri Formation	0-10	Otorohanga Limestone			<p>Bivalve and bryozoan frags.</p>	L2	2		<p>Horizontal bedding.</p>
										<p>Massive argillaceous lst.</p>
										<p>Horizontally bedded lst., glauconite common.</p>
										<p>Massive lst., argillaceous, poorly developed bedding.</p>
										<p>Cross-bedded lst., one large set, obscure, north.</p>

mud
 limst
 silst
 calc
 sand
 gravel

94-24

2 of 2



Stratigraphic Column No: 94-26

Grid Reference:

NZMS 260 S16

Region: Te Kuiti

E: 2700800

Location: Rangitoto Quarry

N: 6317300

94-26

NZMS 260 Sheet: S16/008173

Page 1 of 1 **Author:** A.S. Anastas

Modified: A. Tripathi

1 of 1

Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description	
Lw	Mahoenui Group	0-80	Mahoenui Mudstone							<p>Mahoenui Mudstone with interbedded planktic foram-rich argillaceous lst. near base. Argillaceous, horizontally bedded lst.</p>	
	Otorohanga Limestone						L8			<p>Horizontally bedded lst, tabular partings, increases in argill. at top, one laterally discontinuous planar-tabular cross-bed.</p> <p>Planar-tabular cross-bedding, discordant lamination. Low angle, planar-tabular cross-beds. 5-15 cm flags, tangential bases and tops, sets < 30 cm. Planar-tabular cross-beds, widespread.</p>	
Ld	Orahiri Fmn	0-80	Otorohanga Limestone			⊕				L3	Horizontally bedded lst., darker weathered, passes laterally into small sets.
										L2	Low angle, planar-tabular cross-beds, 5-15 cm flags, tangential bases and tops, sets < 30 cm, rare large rounded echinoid frags.
										L3	Cross-bedded lst. Thin, hor. bedded lst, weathers darker than unit below, increased argillaceous content, passes laterally into small sets.
										L3	Horizontally bedded lst., bryozoan grainstone, transected by reverse fault, 1-2 m tabular partings, tabular flags.
										L2	Cross-bedded lsts (poorly exposed, cream colour, thin shale seam at top). Horizontally bedded lst., green bedding planes, seams 10-15 cm apart, rubbly disconnected outcrop.
										L2	3D planar tabular cross-beds, numerous intraset discontinuities, compound set, 220 azimuth. Massive, horizontally bedded limestone, appears argillaceous.
										L3	Horizontally bedded limestone, seams 5-10 cm apart, pack-grainstone.
										L2	Amalgamated cross-bedded complex, 5-10 cm flags, 3D lee side cross-stratification, 2D planar-tabular at top with ubiquitous troughs in lower 2/3. Horizontally bedded lst., 5-10 cm flags, wavy argillaceous seams, horizontal burrows.
									L3-L4	Horizontally bedded lst., packstone, mass. to 15-30 cm 'beds', tabular partings, wavy argillaceous seams, blue and beige-green flecks, homogeneous bioturbation, tempestites.	
						⊕ <i>Scolecia</i>				L3	Horizontally bedded lst., 15-30 cm tabular beds, homogeneous texture, tempestite?, horizontal and vertical burrows, 1-2 m tabular partings, vertical fractures, green insoluble residue at seams.

mud
lime
shale
sandstone
sand
gravel

Stratigraphic Column No: 94-39

Grid Reference:

NZMS 260 S16

Region: Te Kuiti

E: 2703200

Location: 'CSN' 135, Mangaokewa Stream,
south of Te Kuiti

N: 6311200

94-39

NZMS 260 Sheet: S16/032112

Page 1 of 1 **Author:** A.S. Anastas
Modified: A. Tripathi

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Stage	Strat Unit	Scale (metres)	Strat Unit (old)	Lithology	Structures	Fossils	Facies	Photo No.	WO No.	Description	
	Orahiri Fmn - Otorohanga Lst		Orahiri - Otorohanga Lst								
	Mn Gp										
								L8			Argillaceous, horizontally bedded lst., glauconitic (?) lamination. Tabular beds 15-20 cm, rare vertical burrows.
								L3-L4			Interbedded brown friable and glauc. lst., cross-bedded? Glauc. lst. Massive to thick bedded lst., sandy.
								L2			Sandy glauc. lst., cross-set, lamination.
								S1			Massive calc. sst., dark green-brown.
								L1-L4			Massive to thick bedded lst., horizontally bedded, glauconitic.
								L1			Rhodolite-pebble lst., borings, massive, mud chips. Massive sandy glauc. lst., rare pebbles. Pebbly lst. Boulder conglomerate, carbonate cemented, pebbly. Basement.

Large cup bryozoans

mud
silt
sand
gravel