

SH16 CAUSEWAY UPGRADE PROJECT



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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

To provide Auckland Council with a monthly overview of construction progress and compliance activity on the SH16 Causeway Upgrade project.

This report describes and details activities during the month of April 2014.

2.0 OVERVIEW of ACTIVITIES UNDERTAKEN

2.1 Environmental

Regular contact is continuing with the Auckland Council compliance team.

2.2 Communications and Stakeholder Management

- Produced monthly Causeway News project updates to stakeholders, project neighbours and wider community.
- Feedback from a resident in Montrose Street, Pt Chevalier concerning the night works in the GNRI area relating to staff voices, and work activities in early April. As a result we will ask staff to ensure they do not shout to each other (and instead use their radios) and eliminate the banging of steel. Unfortunately we cannot reduce the whirring noise of the drilling of the existing road to install securing pins. The noise being generated is below our allowable limit as we have recorded it previously, and we can use baffles/ply sheets to deflect the noise in future. The resident mentioned it's not the magnitude of the noise but more the whirring sound which is irritating and that is something we are unable to eliminate, unfortunately.
- Positive feedback received from stakeholders receiving the Causeway News and cyclists using the temporary cycleway arrangements.
- Submitted a draft Open Space Restoration Plan for the Rosebank Park Domain to Council and to wider stakeholders for review by 30 May.

2.3 Construction

- Alwyn Ave (Whau River bridge south-west) temporary staging for widening the southern side of the Whau River Bridge.
- Whau River Bridge (northern side) completion of permanent bridge piling/crossheads for eastbound bridge widening, with beam installation scheduled for April.
- Patiki to Whau (westbound, around Rosebank Park Domain) –earthworks along batter slope ceased along Rosebank Park Domain when asbestos identified, reclamation and earthworks continuing in the Coastal Marine Area and piling at Whau Bridge embankment.

- Whau to Rosebank (eastbound) earthworks and rock revetment continuing. Retaining wall works completed (including rock revetment)
- Causeway (from North Traherne Island eastbound direction) continue installation of the
 preload fill layer (surcharge) up to full height and coffer dam/stability (reclamation
 completed). Completed wick drain and drainage blanket installation. Remedial works
 required to embankment slumps before further earthworks proceeds in these areas.
 Commenced piles at Causeway Bridge approach
- Causeway (South Traherne Island, westbound) –wick drains completed, continue earthworks and preloading, final vegetation clearance (towards Rosebank Road westbound off-ramp).
- Great North Road Interchange (GNRI) (northern side, eastbound from Causeway Bridge) stability berm slump area being stabilised with timber piles. Filling further east of Causeway Bridge continuing.
- GNRI (southern side, westbound towards Causeway Bridge) continue earthworks, utility trenching, timber piling at basalt transition, Oakley slip area remedial works on hold.

3.0 MEETINGS, INSPECTIONS AND EVENTS

3 April, 17 April (2 visits) – Auckland Council's earthworks compliance inspections

14 April – Auckland Council's coastal compliance inspection

4.0 **ENVIRONMENTAL MONITORING**

4.1 EARTHWORKS COMPLIANCE

Compliance Inspections were completed by Auckland Council officers on the 3 April and 17 April and recorded a compliance score of 1 (Full Compliance).

4.2 CONSTRUCTION NOISE AND VIBRATION

Two Site Specific Noise Management Plans submitted and approved in April for the installation of the concrete beams at north-east Whau River Bridge and on-ramp surfacing works at the GNRI.

4.3 AIR QUALITY

No air quality complaints or issues were received during the period.

4.4 CONTAMINATED SOIL

A summary of exported material disposal locations, along with material classifications, sample methods and quantities at various site locations along the alignment during April is included in Appendix B.

Asbestos was identified in small pieces of old broken, building materials in the soils excavated for the batter slope around the edge of the Rosebank Domain. The processes in the Contaminated Soils Management Plan have been followed. Further testing is required to ascertain the extent of the material and a specialist disposal method. The air quality testing around the site has not shown any particles of asbestos present. The methodology for further testing and assessment has been discussed and agreed with Council's Contaminated Soil Specialist.

4.5 EROSION AND SEDIMENT CONTROL

One site specific Erosion and Sediment Control Plan was submitted and approved in April for the earthworks at GNRI (areas 6 and 10).

4.6 ARCHAEOLOGICAL

There were no inspections of the works undertaken in April.

4.7 COASTAL MONITORING

Compliance Inspection was completed by Auckland Council officers on the 14 March and recorded a compliance score of 1.

An assessment of effects of the Oakley Creek slump (which occurred on 28 February and transported rock armouring across to the other side of the main channel) concluded that the disturbance in the creek meander is not having any negative ecological or marine life impacts. A remedial works plan was discussed and agreed with Council in April. This plan involves removing rocks on the southern mud bank and any loose rocks from the channel could remain, as they are not causing any impacts and their removal would create a larger impact by disturbing marine sediments

The further slips which occurred on the northern side of the Causeway works on 11 March and 2 April are continued to be monitored, surveyed and analysed to determine the appropriate remedial work. Increased instrumentation and frequency of monitoring is part of the mitigation plan to provide additional data for early intervention.

4.8 MARINE MONITORING

The winter 2014 marine benthic monitoring will be undertaken during June/July/August 2014.

4.9 ECOLOGICAL

An inspection of Significant and Valued vegetation was undertaken on 16 April at Traherne Island (Zone 1), Patiki Road/Rosebank Domain/Causeway (Zone 2), Whau River Bridge (Zone 3) and at GNRI (Zone 5).

Monthly assessment of avian roosting locations was undertaken at Harbourview-Orangihina (Pony Club) and the temporary roosting rafts at the Causeway Bridge. The monthly avian count at Harbourview – Orangihina for April 2014 was 76 birds compared to the pre-establishment baseline count in April 2011 of 77 birds. Three coastal birds were observed to use the temporary bird roost sites (floating pontoons) installed south of Causeway Bridge, which is consistent with the low level of current adjacent construction activity.

5.0 CORRESPONDENCE ON CONSENT CONDITIONS AND PLANS

Obtained Council approval for undertaking earthworks past 30 April (winter works approval).

Submitted a request to Council for approval of a minor change to the coastal consents for the area of reclamation and permanent occupation of the Coastal Marine Area for the Rosebank Fill Embankment.

6.0 WORKS PROPOSED FOR MAY, JUNE AND JULY 2014

Refer Appendix A for Construction Zone Plan.

Zone 1 Causeway

- Eastbound: Continue installing the Continuous Flight Auger piles at Causeway Bridge approach/transitions, working platform, preload fill (surcharge).
- Westbound: Divert cycleway onto closed bus lane westbound from Causeway Bridge to Traherne Island South, complete earthworks and preload in Traherne Island South (and towards Rosebank Road off ramp). Earthworks and culvert works under Rosebank Road off ramp.

Zone 2 / Zone 3 Whau to Rosebank

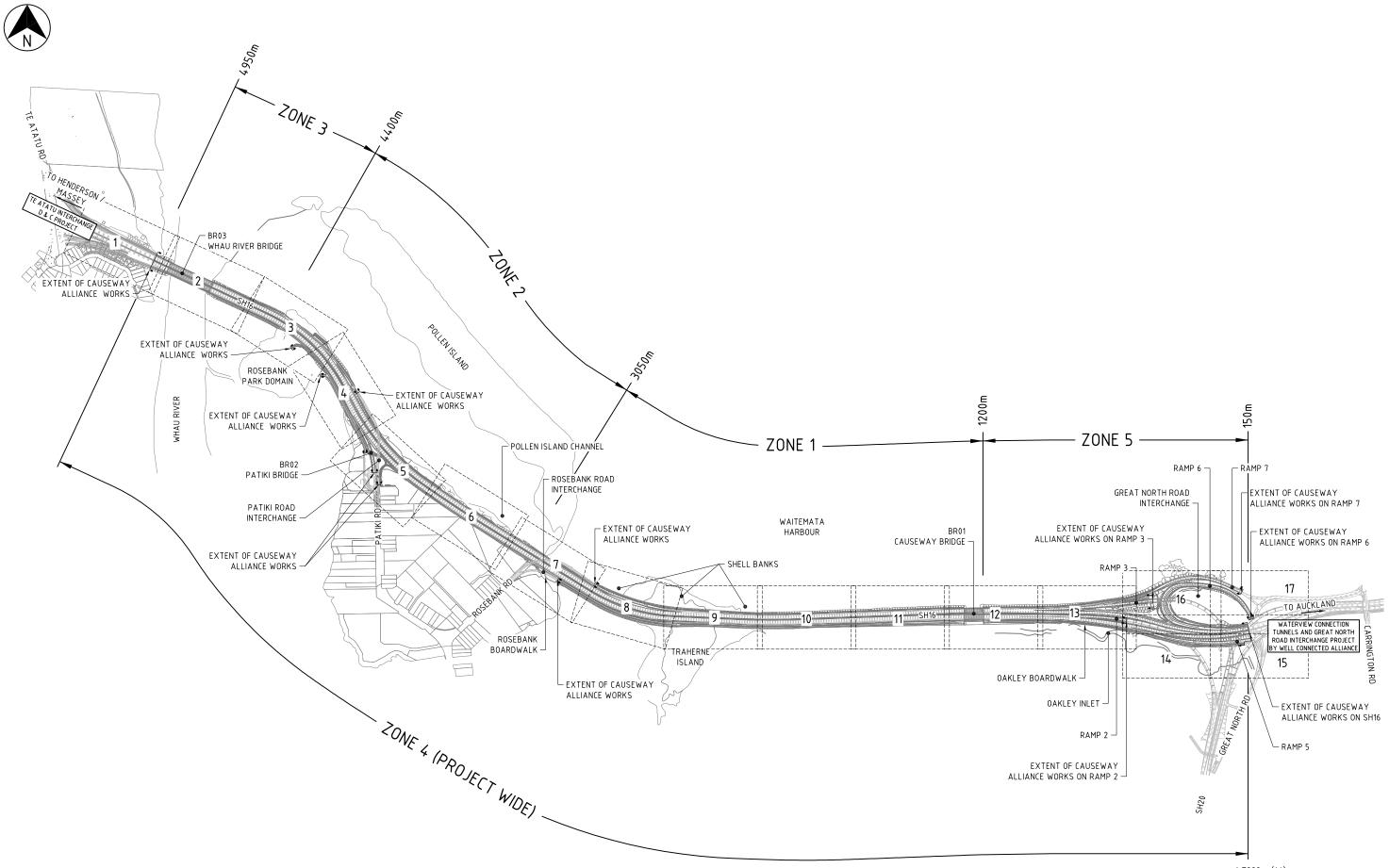
- Eastbound: Installing new Whau Bridge spans. Continue earthworks.
- Westbound: Continue temporary and permanent piling for Whau Bridge widening, continue and complete earthworks between Whau River Bridge and Patiki Road (including works on Rosebank Park Domain batter slope). Commence works for Patiki Road on-ramp widening/underpass, including culvert extension/outfalls.

Zone 5 GNRI

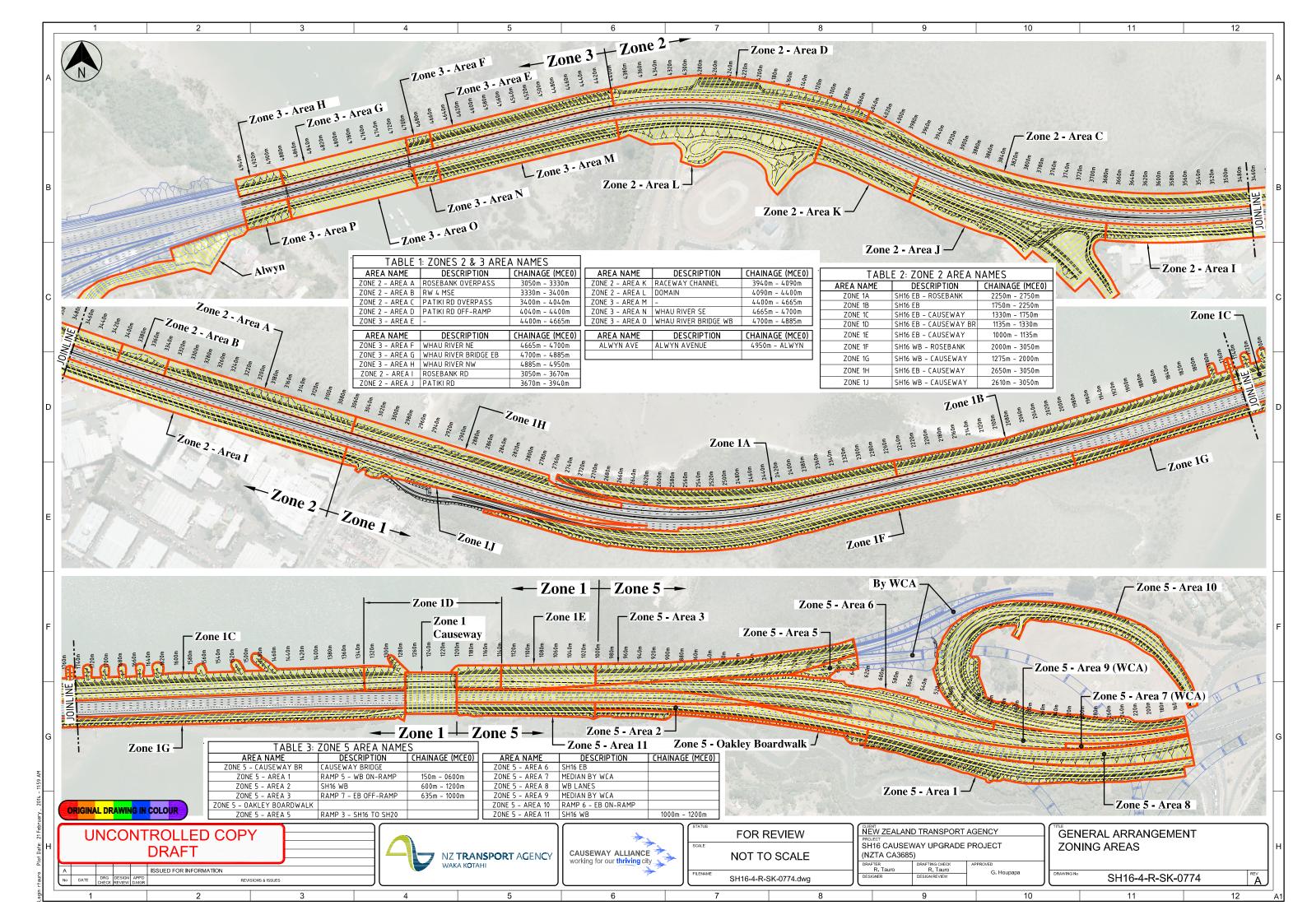
- East bound: Continue earthworks for preload in an easterly direction alongside Great North Road east-bound off-ramp.
- Westbound: Commence piling to stabilise and then remedial work for Oakley Creek slump and continue with embankment filling.

The environmental focus for May will continue to be on inspections prior to and during vegetation removal, monitoring material movements and ground clearance to ensure ecological and archaeological stand over requirements are met. The establishment and monitoring of sediment and erosion controls and monitoring slumps will also continue.

Appendix A: SH16 Causeway Alliance Construction Zone Plan



Appendix B: SH16 Causeway Imported and Exported Material Summary



SH16 Causeway Upgrade - April 2014 Materials Tally On Site Materials Movement and Disposal to Landfill

Date 1	Transport Sub Contractor	Ordering D Zone		iterial Fro	om Area	Gate From Description Non-Import Only	To Area	To Description	Specification Description	Material Type	Sample ID	Lab Report ID	Classification	Final Disposal Facility	Conformance	Truck Type		ruck ume (T)		otal Volume (m³)	Total Volume (m³) for April	Sample Rate
	G&C	Zone 2 30	07720 Sit	e Zo	ne 2 - Area J	C6 Cut to waste - Double Handle	Zone 2 - Area L	Stockpile	Cut to Waste	Clean Fill	CA18; CA19; CA20; CA75; BH459 (0.9 m); DH460	1176303; 1226072. (Refer to G9 report for BECA results).	Cleanfill	Stockpiled onsite at Zone 2 - Area L	Yes	6 wheeler	9	8	72	45	45	Total volume of material displaced from Zone 2J: 45 m ³ . Six analysed samples relate to Zone 2J. The current sample rate is one sample per 8 m ³ . This meets the minimum sampling requirements of one sample per 1000 m ³ for cleanfill.
15/04/2014 c 1/04/2014 c 1/04	G&C	Zone 2 30 Zone 2	Sc.		ne 2 - Area J ne 2 - Area J ne 2 - Area J ne 2 - Area L ne	Non-Import Only Color Ut to waste - Double Handle Color Domain Cut to waste - Double Handle Color Domain Cut to waste - Domain Cu	Zone 2 - Area L Zone 2 - Area L Rodge Road Landfill Rodge Road L	Cut to Waste Cut t	Description Cut to Waste	Clean Fill Topsoil & Cley - Unsuitable Topsoil & Cley - U	CA18; CA19; CA20; CA75; BH459 (0.9	1176303: 1226072. (Relier to G9 report for BECA results). 1108341: 1218668: 1242186. (Relier to G9 Report for BECA results).		Stockpiled onsite at Zone 2 - Area L Ridge Road managed fill Ridge Road refuse		6 wheeler Finck & Trailer Fin	Count Vol. 9 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	29.5 229.5	Volume (T) (c			Total volume of material displaced from Zone 2J: 45 m³. Six analysed samples relate to Zone 2J. The current sample rate is one sample per 8 m². This meets the minimum sampling
10/04/2014 (C 11/04/2014 (C 11	G&C G&C G&C G&C G&C G&C G&C G&C G&C G&C	Zone 2 3: Zone 2 2: Zone 2 3: Zone 2 3:	34867 Sil 16921 Sil 12196 Sil 07566 Sil 088381 Sil 08025 Sil 3045 Sil 08025 Sil 08025 Sil 3045 Sil 308025 Sil 308025 Sil 313045 Sil 31304 Sil 3130	e Zoue Zoue Zoue Zoue Zoue Zoue Zoue Zou	ine 2 - Area L	Domain Cut to wastes C6 Domain Cut to wastes C7 Domain Cut to wastes C8 Domain Cut to wastes C8 Domain Cut to wastes C9 Domain Cut to wastes C7 Domain Cut to wastes C8 Domain Cut to wastes C9 Domain Cut to wastes	Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsultable Reduse Waste Reduse Waste				Ridge Road cleanfill Hampton Downs Ridge Road refuse	Pending investigation Yes Pending investigation	Truck & Trailer	3 2 2 2 3 3 3 1 1 3	29.5 29.5 29.5 29.5 29.5 29.5 29.5 29.5	88.5 88.5 59 53 88.5 88.5 88.5 29.5 88.5 59 88.5 59	18 55 55 37 33 55 55 55 18 55 55 37 55 37		
11/04/2014 (11/04/2014 (11/04/2014 (11/04/2014 (11/04/2014 (13/04/2014 (G&C G&C G&C G&C	Zone 2 33 Zone 2 30 Zone 2 33 Zone 2 33	34868 Sit 07568 Sit 11856 Sit 34868 Sit	e Zoi e Zoi e Zoi e Zoi	ine 2 - Area L ine 2 - Area L ine 2 - Area L ine 2 - Area L	C6 Domain Cut to waste	Ridge Road Landfill Ridge Road Landfill Ridge Road Landfill Ridge Road Landfill Hampton Downs Landfill Ridge Road Landfill Zone 3 - Area M	Cut to Waste Cut to Waste Cut to Waste Il Cut to Waste Cut to Waste Cut to Waste Cut to Waste	Cut to Waste Cut to Waste Cut to Waste Cut to Waste	Topsoil & Clay - Unsuitable Refuse Waste Topsoil & Clay - Unsuitable Refuse Waste				Ridge Road cleanfill Hampton Downs Ridge Road cleanfill Zone 3 - Area M	Pending investigation Yes Pending investigation Pending investigation	Truck & Trailer Truck & Trailer Truck & Trailer Truck & Trailer Artic Truck & Trailer 6 wheeler	1 1	29.5	29.5 29.5 26.5 5.2 29.5 56	18 18 17 3 18 35		

SH16 Causeway Upgrade - April 2014 Materials Tally On Site Materials Movement and Disposal to Landfill

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Date Transport	Ordering Docket	# Material Source	From Area	Gate From Description Non-Import Only	To Area	To Description	Specification Description	Material Type	Sample ID	Lab Report ID	Classification	Final Disposal Facility	Conformance	Truck Type	Load Count	Truck	Total	Total Volume (m³)	Total Volume (m³) for April	Sample Rate
Contractor	Zone	Source	I	Non-import only		Description	Description								Count	volulle (1) v	nume (1)	(conversion factor of 1.6 (1 t = 1/1.6))		
15/04/2014 G&C	Zone 2 334872	Sito	Zono 2 - Aroa I	C6 Domain Cut to wast	Didno Doad Landfill	Cut to Wasta	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	3		88.5	55		
15/04/2014 G&C	Zone 2 308385		Zone 2 - Area L		te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer	3		88.5	55		
15/04/2014 G&C	Zone 2 333501	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	3		88.5	55		
15/04/2014 G&C	Zone 2 279377		Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer	3		88.5	55		
15/04/2014 G&C 15/04/2014 G&C	Zone 2 335207 Zone 2 316926		Zone 2 - Area L Zone 2 - Area I	C6 Domain Cut to wast C6 Domain Cut to wast	te Ridge Road Landfill te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	1	20	29.5	18 54		
15/04/2014 G&C 15/04/2014 G&C	Zone 2 316926 Zone 2 308029	Oit C		C6 Domain Cut to wast	te Ridge Road Landfill		Cut to Waste	Topsoil & Clay - Unsuitable Topsoil & Clay - Unsuitable						Truck & Trailer Truck & Trailer	3	29.5	88.5	54 55		
15/04/2014 G&C	Zone 2 334302	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	3		88.5	55		
15/04/2014 G&C	Zone 2 319333	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	3		88.5	55	1	
15/04/2014 G&C	Zone 2 307637	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	3	88.5	88.5	55		
16/04/2014 G&C	Zone 2 316929	Oit C	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer	Ü	29		55		
16/04/2014 G&C 16/04/2014 G&C	Zone 2 333502		Zone 2 - Area L	C6 Domain Cut to wast C6 Domain Cut to wast	te Ridge Road Landfill te Ridge Road Landfill	Cut to Waste	Cut to Waste Cut to Waste	Topsoil & Clay - Unsuitable Topsoil & Clay - Unsuitable						Truck & Trailer Truck & Trailer	4	29.5 29.5		74 55		
16/04/2014 G&C	Zone 2 334873 Zone 2 308386			C6 Domain Cut to wast			Cut to Waste	Topsoil & Clay - Unsuitable Topsoil & Clay - Unsuitable						Truck & Trailer Truck & Trailer		29.5		18		
16/04/2014 G&C	Zone 2 318800		Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer	3		88.5	55		
16/04/2014 G&C	Zone 2 279378	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	1	29.5	29.5	18		
16/04/2014 G&C	Zone 2 308031		Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable				Ridge Road managed fill	Pending investigation	Truck & Trailer	3	29.5	88.5	55		
16/04/2014 G&C 16/04/2014 G&C	Zone 2 334306	ONC	Edilo E Filod E	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer			88.5	55		
16/04/2014 G&C 16/04/2014 G&C	Zone 2 308655 Zone 2 335054		Zone 2 - Area L Zone 2 - Area L	C6 Domain Cut to wast C6 Domain Cut to wast	te Ridge Road Landfill te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable Topsoil & Clay - Unsuitable						Truck & Trailer Truck & Trailer		29.5 29.5	29.5	18		
17/04/2014 G&C	Zone 2 309252		Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer	 		29.5	18		
17/04/2014 G&C	Zone 2 334307	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	1		20.64	13	1	
17/04/2014 G&C	Zone 2 308032	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	1		29.5	18		
17/04/2014 G&C 17/04/2014 G&C	Zone 2 333503 Zone 2 334875		Zone 2 - Area L Zone 2 - Area L	C6 Domain Cut to wast C6 Domain Cut to wast	te Ridge Road Landfill te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer Truck & Trailer	1 1	29.5	29.5	18		
17/04/2014 G&C 17/04/2014 G&C	Zone 2 334875 Zone 2 334054			C6 Domain Cut to wast			Cut to Waste	Topsoil & Clay - Unsuitable Topsoil & Clay - Unsuitable						Truck & Trailer		29.54		18		
23/04/2014 G&C	Zone 2 334171			C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer	1		29.5	18		
23/04/2014 G&C	Zone 2 317546	Site	Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	1	29.5	29.5	18		
24/04/2014 G&C	Zone 2 307689		Zone 2 - Area L	C6 Domain Cut to wast	te Ridge Road Landfill	Cut to Waste		Topsoil & Clay - Unsuitable						Truck & Trailer	1		29.5	18		
24/04/2014 G&C 24/04/2014 G&C	Zone 2 279384 Zone 2 334310	Oit C	Zone 2 - Area L Zone 2 - Area L	C6 Domain Cut to wast C6 Domain Cut to wast	te Ridge Road Landfill te Ridge Road Landfill	Cut to Waste	Cut to Waste Cut to Waste	Topsoil & Clay - Unsuitable Topsoil & Clay - Unsuitable						Truck & Trailer Truck & Trailer	1		29.5	18 18		
24/04/2014 G&C 24/04/2014 G&C	Zone 2 307643		Zone 2 - Area L				Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	1		29.5 29.5	18		
24/04/2014 G&C	Zone 2 308392			C6 Domain Cut to wast			Cut to Waste	Topsoil & Clay - Unsuitable						Truck & Trailer	 		29.5	18		
2/04/2014 G&C	Zone 3 308453	_	Zone 3 - Area E		Zone 2 - Area J	Cut to Waste	Cut to Waste	Cut to Waste				Used onsite at Zone 2 - Area J		6 Wheeler			64	40		Total volume of material displaced from Zone 3E: 2220 m ³
3/04/2014 G&C	Zone 3 308454	Site .	Zone 3 - Area E	C3	Zone 2 - Area D	Cut to Waste	Cut to Waste	Cut to Waste				Used onsite at Zone 2 - Area D	Yes - Able to be used onsite	6 Wheeler			80	50		(includes 215 m³ displaced in December 2014, 660m³ displaced
10/04/2014 G&C 29/04/2014 G&C	Zone 3 308452 Zone 3 82044	JIIC .	Zone 3 - Area E	C3	Zone 2 - Area J		Cut to Waste	Cut to Waste				Used onsite at Zone 2 - Area J	Yes	6 Wheeler	-		40 29.5	25		in January 2014, 298 m ³ displaced in February 2014 and 825 m ³ displaced in March 2014). Three analysed samples relate to Zone 3E. The current sample rate is one sample per 740 m ³ . This meets the minimum sampling requirements of one sample
29/04/2014 G&C 29/04/2014 G&C	Zone 3 82044 Zone 3 82039		Zone 3 - Area E Zone 3 - Area E	C2	Ridge Road Landfill Ridge Road Landfill	Cut to Waste	Cut to Waste	Topsoil & Clay - Unsuitable Topsoil & Clay - Unsuitable	CA15. (BECA sampling BH470 0.3 m;	1175713. (Refer to G9	Cleanfill			Truck & Trailer Truck & Trailer	1 1	-	29.5	18	222	
30/04/2014 G&C	Zone 3 82210	Oit C		C2 Cut to waste	Ridge Road Landfill	Cut to Waste		Topsoil - Unsuitables	2.6 m)	Report for BECA results)	Ocariii	Dideo David eleveriti		Truck & Trailer			28	18		
30/04/2014 G&C	Zone 3 82275			C2 Cut to waste	Ridge Road Landfill	Cut to Waste		Topsoil - Unsuitables				Ridge Road cleanfill		Truck & Trailer			28	18		
30/04/2014 G&C	Zone 3 82196			C2 Cut to waste	Ridge Road Landfill		Cut to Waste	Topsoil - Unsuitables						Truck & Trailer	\vdash		28	18		per 1000 m ³ for cleanfill.
30/04/2014 G&C 8/04/2014 G&C	Zone 3 82260 Zone 2 335251	Oit C	Zone 3 - Area E	C2 Cut to waste C6 Waste stockpile	Ridge Road Landfill Zone 2 - Area L	Cut to Waste	Cut to Waste Cut to Waste	Topsoil - Unsuitables	CAEA CAEE CAE/ /DECA	1215417. Refer to G9	CAEA CAEE MIC/7E	Handanaha at Zana A. Anad	CAFY and DUMAN associated Cabadata 10 associated disabases for alited	Truck & Trailer 6 wheeler	7	0	28	18 35	20	·
6/04/2014 G&C	Zurie 2 333231	Site	ZUIIE 3 - AIEd IVI	Co Waste Stockpile	Zuile 2 - Aled L	Cut to waste	Cut to waste	Managed Fill	CA54, CA55, CA56. (BECA sampling BH469 0.75 m & 2.3 m; WS675 0.7 m).		CA54, CA55, WS675 and BH469 (2.3 m) all cleanfill.	Used onsite at Zone 2 - Area L	CA56 and BH469 exceeded Schedule 10 permitted discharge for nickel (concentration of nickel at CA56 was 119 mg/kg (TCLP of <0.011 mg/L) and		'	۰ ا	30	33	30	Total volume of material displaced from Zone 3M: 1060 m ³
			I						B11407 0.73 III & 2.3 III, W3073 0.7 III).	Report for BECA results.	CA56 and BH469 (0.75 m)		at BH469 was 250 mg/kg, Auckland S10 permitted discharge limit is 105	1						(Includes 1035 m³ displaced in March 2014) Six analysed
			I			1					are managed fill.		mg/kg). Material unable to be reused on site. Appears to not comply for							samples relate to Zone 3M. The current sample rate is one
			I										CA55 and BH469 although TCLP for CA56 was below the detection limit							sample per 177 m ³ . This meets the minimum sampling
			I										(<0.011 mg/L) meaning the leachability for nickel is extremely low at this							requirements of one sample per 500 m ³ for managed fill and
			I										location. Based on results in the vicinity, this is a low risk non conformance							1000 m ³ for cleanfill.
			I										and requires no further action.							
28/04/2014 G&C	Zone 5 317122	Site	Zone 5 - Area 2	C8 Cut to waste	Ridge Road Landfill	Cut to Waste	Cut to Waste	Crushed Concrete		 	1	-		Artic	1	20	20	13	1	
28/04/2014 G&C	Zone 5 334881			C8 Cut to waste	Ridge Road Landfill	Cut to Waste		Cut to Waste						Truck & Trailer	i	30	30	19	1	
28/04/2014 G&C	Zone 5 322770		Zone 5 - Area 2	C8 Cut to waste	Ridge Road Landfill	Cut to Waste	Cut to Waste	Cut to Waste						Truck & Trailer	1	30	30	19]	Total volume of material displaced from Zone 5 Area 2: 300 m ³
28/04/2014 G&C	Zone 5 316937	Site	Zone 5 - Area 2	C8 Cut to waste	Ridge Road Landfill	Cut to Waste		Cut to Waste		1162411. (Refer to G9				Truck & Trailer	2	30	60	38	4	
29/04/2014 G&C 29/04/2014 G&C	Zone 5 317123 Zone 5 333510		Zone 5 - Area 2 Zone 5 - Area 2	C8 Cut to waste C8 Cut to waste	Ridge Road Landfill Ridge Road Landfill	Cut to Waste		Cut to Waste Cut to Waste	CA05. (BECA sampling BH403 (0.5 m;	Report for BECA	Cleanfill	Ridge Road cleanfill	Yes	Artic Truck & Trailer	. J	30	30	38	288	(includes 12 m ³ displaced in September 2013). Three analysed samples relate to Zone 5 Area 2. The current sample rate is
29/04/2014 G&C 29/04/2014 G&C	Zone 5 309261		Zone 5 - Area 2	C8 Cut to waste	Ridge Road Landfill	Cut to Waste	Cut to Waste	Cut to Waste	3.0 m)	results).	- Continu	roago road cicariiii	163	Truck & Trailer	2	30	60	38	200	one sample per 100 m ³ . This meets the minimum sampling
29/04/2014 G&C	Zone 5 335424			C8 Cut to waste	Ridge Road Landfill		Cut to Waste	Cut to Waste			1			Truck & Trailer	1	30	30	36 19]	requirements of one sample per 1000 m ³ for cleanfill.
30/04/2014 G&C	Zone 5 317126		Zone 5 - Area 2	C8 Cut to waste	Ridge Road Landfill	Cut to Waste		Cut to Waste						Artic	2		40	25	4	requirements of one sample per 1000 m 101 cleaning.
30/04/2014 G&C 30/04/2014 G&C	Zone 5 334067 Zone 5 335343		Zone 5 - Area 2	C8 Cut to waste C8 Cut to waste	Ridge Road Landfill Ridge Road Landfill	Cut to Waste Cut to Waste		Cut to Waste Cut to Waste		1	1			Truck & Trailer	2		60 40	38	1	
3U/U4/2U14 G&C	ZUIR 3 335343	SILE .	zund 3 - Aled Z	CO CUI IO WASIE	riuge Kudu Edilülli	cut to waste	Out ID MADIG	Cut to Mq2(6		 	 	 		6 wheeler	2	8	16	25	 	
				- 1												٠			1	
1/04/2014				- 1	1	1	1			1	1	Used onsite Zone 5 - Area 1	CA29 exceeded Schedule 10 permitted discharge for nickel (concentration of	ſ				10	1	
0-0	7	CIA	,	010	7 F A -	C-11		Torrell Class					nickel at CA29 was 133 mg/kg, Auckland S10 permitted discharge limit is	.1			- 1			
2/04/2014 G&C	Zone 5 308707 Zone 5 316533	Site	Zone 5 - Area 3 Zone 5 - Area 3	C12	Zone 5 - Area 1 Zone 5 - Area 10	Soil Soil	Landscape - Topsoil Landscape - Topsoil	Topsoil - Clean		1	Cleanfill (CA26 very minor	<u> </u>	105 mg/kg). All other samples were below S10 limits for nickel, based on this	6 wheeler	3	8	2/	15	1	Total volume of material displaced from Zone 5 - Area 3: 173
3/04/2014 G&C 3/04/2014 G&C	Zone 5 316533 Zone 5 307710		Zone 5 - Area 3	C12	Zone 5 - Area 10 Zone 5 - Area 10	Soil	Landscape - Topsoil		CA24; CA25; CA26; CA27; CA28; CA29;	1178678. Refer to G9	exceedence (0.03 mg/kg)	Used onsite Zone 5 - Area 10	it is deemed acceptable for reuse onsite.	6 wheeler	2	8	16	10	1	m ³ (includes 24 m ³ displaced in March 2014). Eight analysed
3/04/2014 G&C	Zone 5 308710		Zone 5 - Area 3	C12	Zone 5 - Area 10	Soil	Landscape - Topsoil	Topsoil - Clean	CA30 (relevant BECA sampling: BH407	Report for BECA results.	of Ridge Road cleanfill			6 wheeler	4	8	32	20	149	samples relate to Zone 5 - Area 3. The current sample rate is
3/04/2014 G&C	Zone 5 313144		Zone 5 - Area 3	C12 Cut to waste	Ridge Road Landfill	Cut to Waste	Cut to Waste	Cut to Waste	0.2 m)		criteria for Benzo[a]pyrene			Artic	1	20	20	13]	one sample per 22 m ³ . This meets the minimum sampling
3/04/2014 G&C	Zone 5 312899	Site	Zone 5 - Area 3	C12 Cut to waste	Ridge Road Landfill	Cut to Waste	Cut to Waste	Cut to Waste			(BAP) (0.027 mg/kg).			Truck & Trailer	1	30	30	19	1	requirements of one sample 1000 m ³ for cleanfill.
3/04/2014 G&C 3/04/2014 G&C	Zone 5 312735 Zone 5 307819		Zone 5 - Area 3	C12 Cut to waste	Ridge Road Landfill	Cut to Waste		Cut to Waste				Ridge Road cleanfill	Yes - Ridge Road has accepted minor exceedences for PAHs	Truck & Trailer	1		30	19 13	4	
3/04/2014 G&C 3/04/2014 G&C	Zone 5 307819 Zone 5 335308		Zone 5 - Area 3 Zone 5 - Area 3	C12 Cut to waste C12 Cut to waste	Ridge Road Landfill Ridge Road Landfill	Cut to Waste Cut to Waste		Cut to Waste Cut to Waste						Artic		20	20	13 12	1	
3/04/2014 G&C 4/04/2014 G&C	Zone 5 335308 Zone 5 312737			C12 Cut to waste C12 Cut to waste	Ridge Road Landfill	Cut to Waste		Cut to Waste Cut to Waste						Truck & Trailer	+ +	30	2U 30	13	1	
4/04/2014 G&C	TOUR 2 212/3/	JIIC .	roun; n . Widd y	C12 CULIU Wasic	I Muyo Nuau Landilli	OUL TO TRASIE	OUL IU WASIC	Cut to Waste						THUCK & HARD		JU	JU	17		