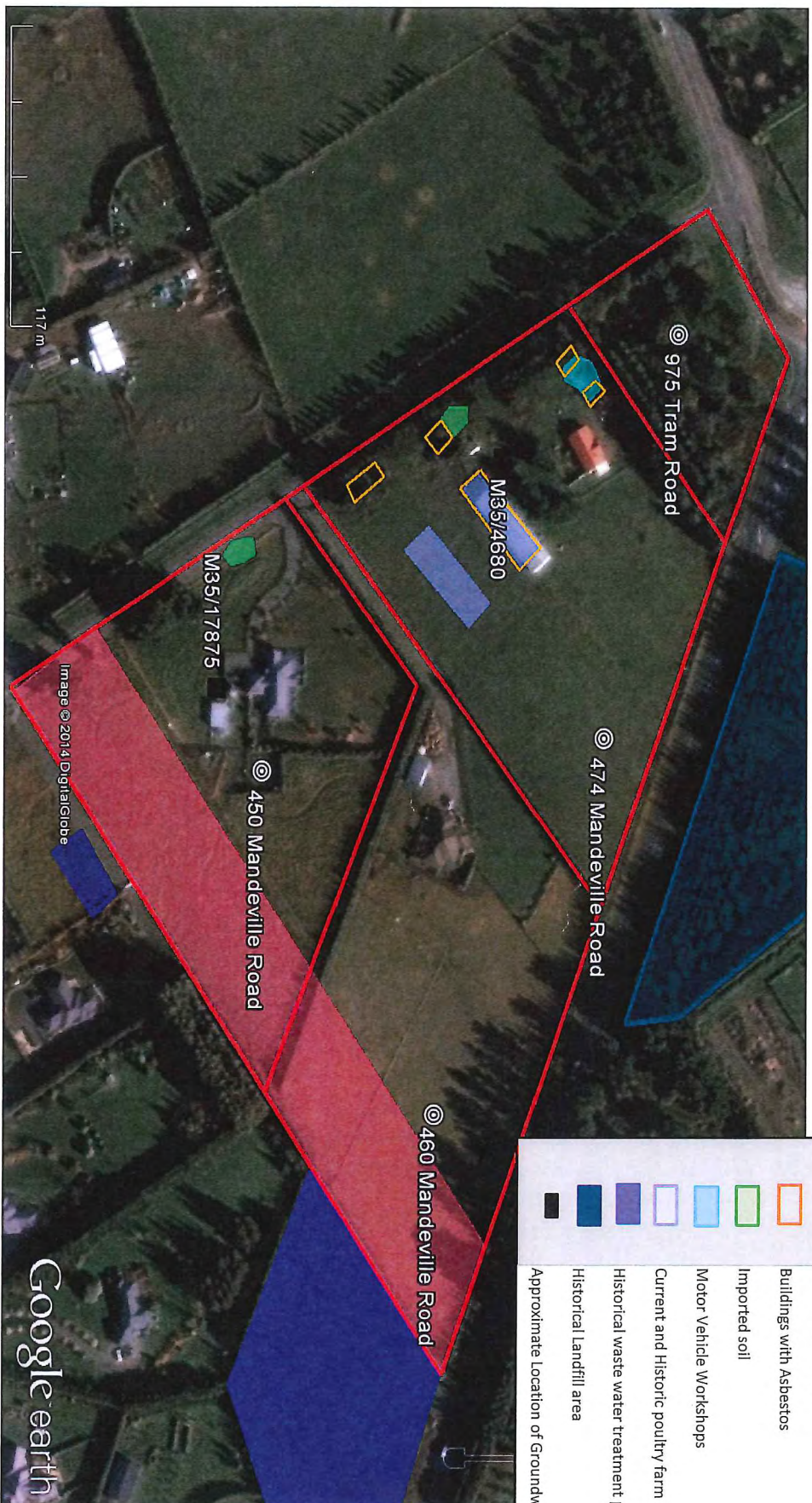




Legend

- Property Boundary
- Market Gardening
- Buildings with Asbestos
- Imported soil
- Motor Vehicle Workshops
- Current and Historic poultry farm
- Historical waste water treatment plant
- Historical Landfill area
- Approximate Location of Groundwater Wells

Basemap Source - Aerial Photograph Courtesy of Google Earth

Rev	description	drawn	approved	date	Scale
1	FINAL	NM	AH	23/09/2014	

drawn	approved	date	scale	original size
NM		23/09/2014	NA	A4

Client: **Waimakariri District Council**

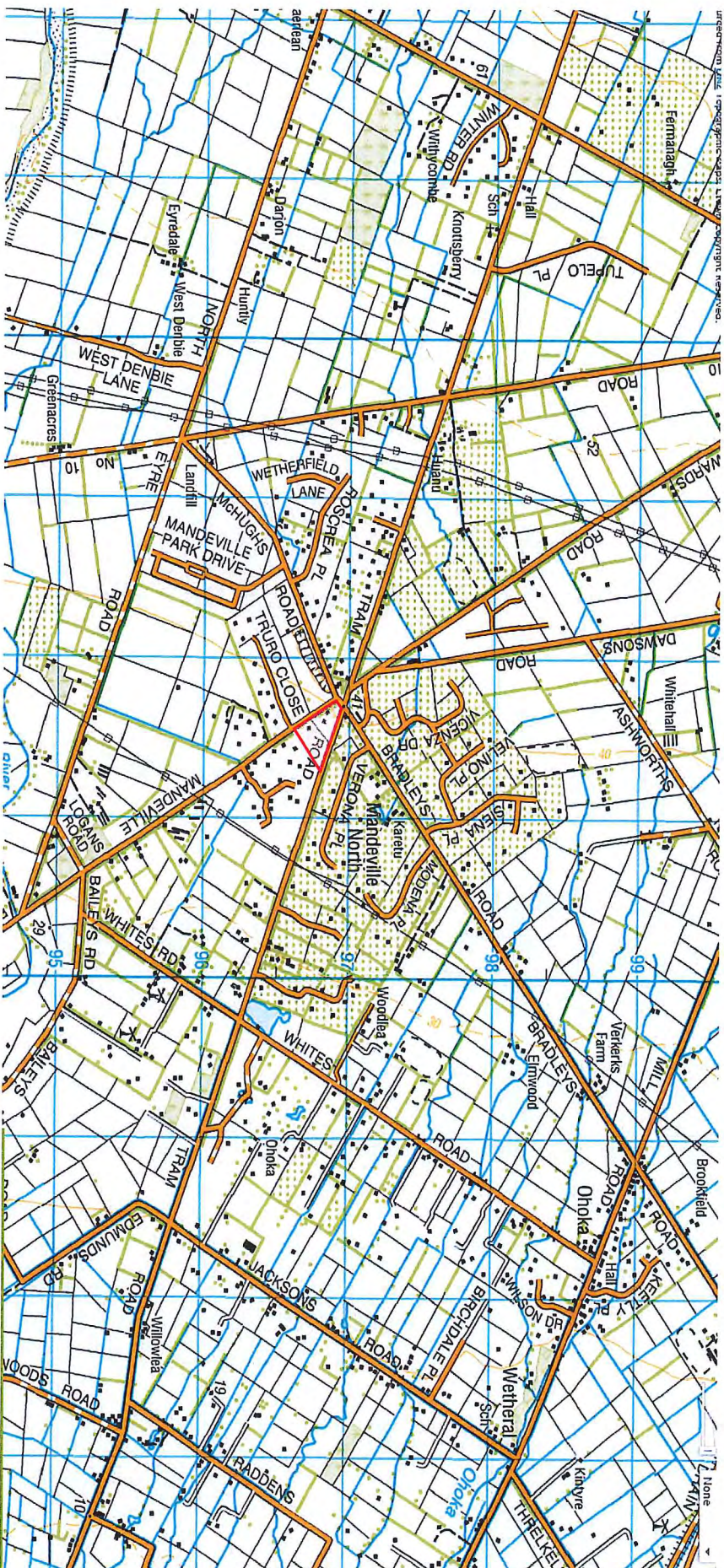
Project: **Mandeville Plan Change**

Title: **Figure 2-Potential Current or Historical HAIL Activities**

Project no: **GENZCHR15611AA** Figure no: **2** Rev:

Legend

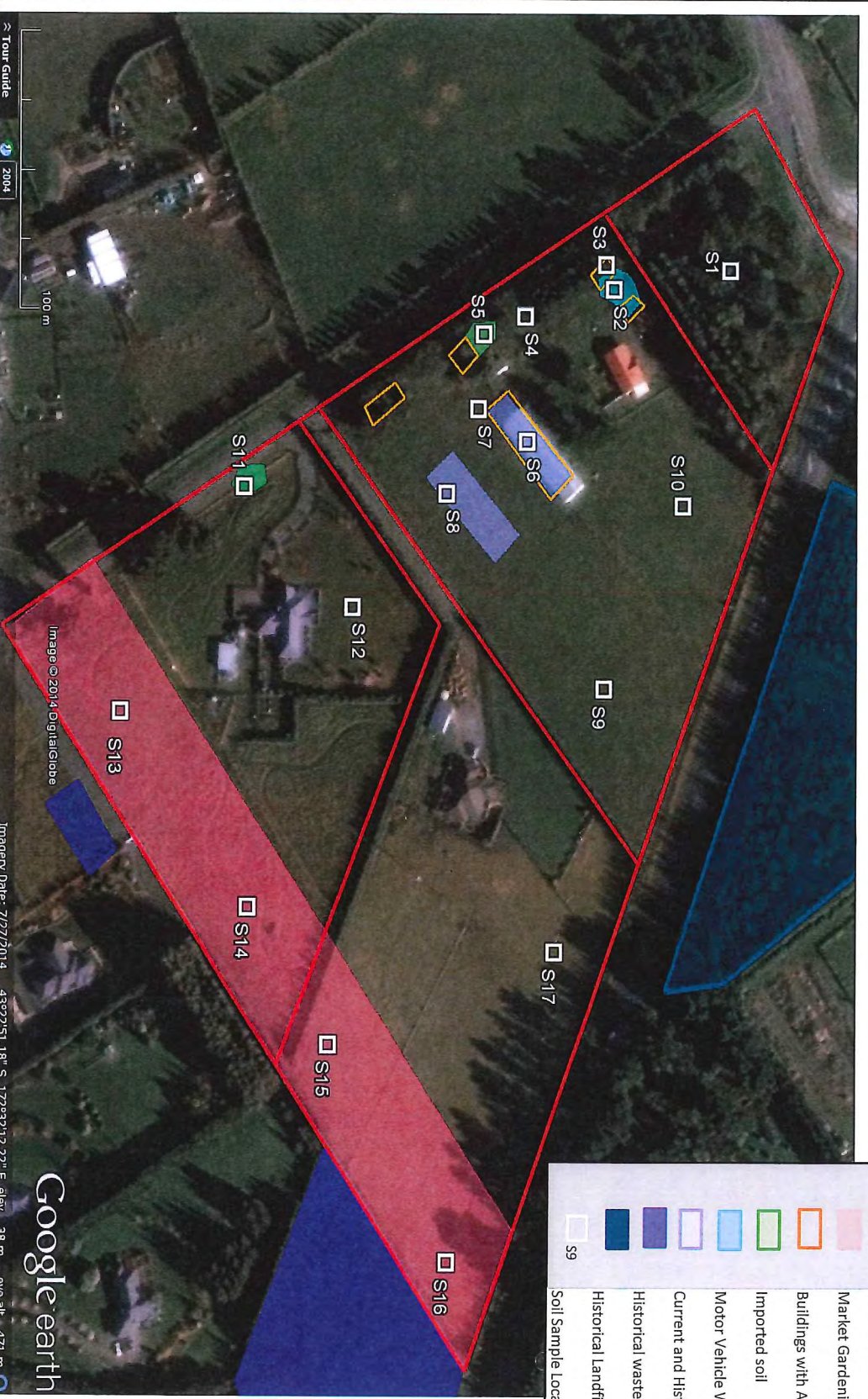
Approximate Site Boundary



Basemap Source - Aerial Photograph Courtesy of Google Earth

Rev	description	drawn	approved	date	Scale	drawn	approved	date	Scale	original size	client:	project:	title:	project no:	figure no:	rev:
1	FINAL	NM	AH	23/09/2014				23/09/2014		NA	Waimakariri District Council	Mandeville Plan Change	Figure 3 - Topographic Map of the site	GENZCHR156T1AA	3	





Legend	
	Property Boundary
	Market Gardening
	Buildings with Asbestos
	Imported soil
	Motor Vehicle Workshops
	Current and Historic poultry farm
	Historical waste water treatment plant
	Historical Landfill area
	Soil Sample Location Point

Basemap Source - Aerial Photograph Courtesy of Google Earth

Image Date: 7/27/2014 43°22'51.18" S 172°32'12.22" E elev 38 m eye alt 471 m

Rev	description	drawn	approved	date	Scale	drawn	approved	date	scale	original size	client	project	title	project no.	figure no.	rev.
1	FINAL	NM	AH	23/09/2014				23/09/2014	NA	A4	Waimakariri District Council	Mandeville Plan Change	Figure 4 - Site Investigation Plan	GENZCHRT15611AA	4	



Appendix A – Field Notes

PRELIMINARY SITE INSPECTION CHECKLIST

Site Details (Name and Address):

975 Tram Road, 474
Mandeville road, 460 Mandeville
road & 450 mandeville road.

Prepared for (Client):

Waimakariri District
Council.

Field Work Date: 5th / 9 / 2014

Project Ref: _____

Inspected By: N. Morgan

1.0 SITE DETAILS

1.1 Location and Legal Description

Site Name	Mandeville Plan Change.
Site Address (including street address)	495 Tram road & 474, 460, 450 Mandeville road.
Legal Description	
Site Zoning (if known)	rural-residential
Local Council	Waimakariri District Council.
Site Operator Name	Nicole Morgan.
Operating Company name	Lotkey.
Facility Type (residential, commercial, etc)	Residential - rural.
Facility Size (Total / Active)	
Future Site Use (if known)	residential 46 & Business
Reason for Investigation (Divestment, end of lease, refurbishment, etc)	re-zoning.

2 General Characteristics

2.1 Site Activities

Prepare site sketch or record observations on a site plan.

Current Site Activities: Tram road - Council reserve & 474, 460 & 450 = grazing (horses)
Previous Site Activities (if known): 975 - Reserve. 460 & 450 - possible m.g. in 1970's, grazing otherwise. 474 - poultry farming, grazing.

Site Appearance (any stressed vegetation, surface staining, spills/leaks, pavements cuts/marks, etc):
used oil staining in carpit at 474 Mandeville road.
rubble w cement board also found at 474.

Signs of previous investigations/remedial works at the site (presence of monitoring wells, abandoned boreholes, trenching etc):

None.

Evidence of petroleum storage onsite (if so, detail below):

None

Product (current/historical)	AST/ UST	Spill Cont.*	Location	Container (size/quantity/condition)	Staining Odors Other obs.

Draw locations of petroleum storage infrastructure (including bowser areas, vent lines, etc) on a site plan.

Oil-Water separator pit/waste oil systems:

Yes beside 474's garage. "car pit"

Waste materials identified onsite (old building materials, waste, rubbish, containers, etc):

Yes next to small shed in front of fowl house. rubble consisted of bricks & cement board.

Waste Streams observed onsite (waste water, collection pits, etc):

None.

none

Chemical/Drum storage (if so, detail below):

none

Drum storage area description (labeled, banded, drainage, evidence of leaks/spills, etc):

none

Drum Substance/Product	Location	Container (type, size, quantity, condition)	Staining Odors Other obs.

Additional comments:

2.2 Topography and Hydrology

Prepare site sketch or record observations on a site plan.

Site Slope Direction: flat

Site Slope (approximate): flat

Surface water drainage (collected or ponding): no ponding onsite did not see any drainage trenches.

Is there a risk of flooding?: No

Surface water bodies/courses onsite: None.

Surface water bodies/courses flow direction: -

Comments (size, lining, vegetation, etc): -

Likely Groundwater depth: ? geotech report says around 4-9m.

Likely Groundwater flow direction: ?

Likely Groundwater discharge point: -

Indication of filled/excavation areas, retaining walls, etc: piles of imported soil can be found at the front of 480 & on the western side of 474.

Additional comments:

1.2.3 Physical Site Description

Prepare site sketch or record observations on a site plan.

Site Size and Shape: _____

% of Area Devoted to parking: <10%

Number of Buildings/Structures Observed: 0 @ 973, 6 @ 474, 2 @ 480, 2 @ 460

Building/Structure Dimensions: most builds are rectangle - see map for relative size & dimensions

Building Materials: possible 4 sheds/garages on 474 is cement board & corrugated iron. House at 474, 460 & 480 are made of brick.

Number of Storeys: all are 1 storey

Basement present: none observed

Mould or asbestos observed in building: yes at 474 Mandeville road.

Flooring (type and condition, cracks, etc): see map 1

% Paved Areas: <10%

% Unpaved: 90%

% Landscaped: <10%

Areas of trees/large vegetation onsite: 100% at 973 Tram road.

Adjacent Roadways: Tram road (East), Mandeville road (west)

Access/Egress from/to: access for all sites of mandeville road.

Fencing/Security: standard wire & post farm fencing

Additional comments:

1.3 Services and Utilities

Prepare site sketch or record observations on a site plan.

Site utilities observed are summarized below:

- Electricity: —
- Water: —
- Sewer: —
- Storm Sewer: —
- Gas: —
- Solid Waste: —
- Heating/Cooling and fuel source: —
- Telecom: —
- Fibre Optic: —

Any odours detected inside service pits:

—

Additional comments:
—

2.0 SURROUNDING AREA OBSERVATIONS

2.1 Current Uses of Adjoining Properties

Mark information on site sketch/map/google earth image if possible.

North: ~~rural-residential~~, Orchards, Reserve land & Tram road.

South: rural-residential sites / far land

East: ~ (SE) - old sewage plant.

West: ~ (SW) - marderville road.

Additional comments:

Use additional sheets if necessary and identify other orientations with respect to the Site (e.g., NW).

2.2 General Landuse of Surrounding Area and Nearby Properties

Enter Residential, commercial/industrial, recreational, agricultural below. Include multiple entries if necessary in order of tl predominant landuse. Mark information on site sketch/map/google earth image if possible.

North: mainly orchards on smaller life style blocks

South: rural residential & Marderville School.

East: rural residential, lifestyle blocks to orchards

West: rural residential & possible forestry area.

Additional comments:

Use additional sheets if necessary and identify other orientations with respect to the Site (e.g., NW).

2.3 Sensitive Receptors in the Vicinity of the Site

Mark information on site sketch/map/google earth image if possible.

North: none

South: none

East: none

West: none.

Additional comments (Geothermal features, cultural heritage features, Coastal Marine Area?):

Use additional sheets if necessary and identify other orientations with respect to the Site (e.g., NW).

1.4 Potential Offsite Sources of Contamination in the Vicinity of the Site

Mark information on site sketch/map/google earth image if possible.

North: pesticide cont from adjacent orchards.

South: none

East: pesticide contamination from adjacent orchards
& next door sewage plant ("remediated")

West: none.

Additional comments:

3.0 INTERVIEW WITH SITE OWNER(S) / OPERATOR(S)

Provide an answer for each question, even if it is "unknown":

Name: _____

Title: _____

Association to site: _____

Years Associated with the Site: _____

What activities are currently conducted here on Site:

Have any other activities been conducted on Site while you've been here:

Do you know the history of the Site: Yes / No

If yes describe below and provide dates and names of entities.

Has the Site ever been investigated by consultants, local, state or Federal agencies for environmental or geotechnic concerns: Yes / No. If yes, describe below and inquire if any reports are available.

Are you aware of any historical chemical/petroleum use/storage (USTs or ASTs) at the Site: Yes / No. If yes describe below, identify the location and request disposal documentation.

see attached notes.

Are you aware of any current chemical/petroleum use/storage (USTs or ASTs) at the Site: Yes / No
If yes describe below, identify the location and request disposal documentation.

Are you aware of any spills or leaks occurring at the Site: Yes / No
If yes describe below, identify location and request spill / leak documentation.

Are you aware of any recent or historical site works (building renovations, earthworks, services works, etc) at the Site:
Yes / No. If yes describe below and provide dates.

Are you aware of any previous environmental/contamination or geotechnical investigations undertaken at the site: Yes / No
If yes, include dates, locations and request reports.

Additional questions/comments/notes:

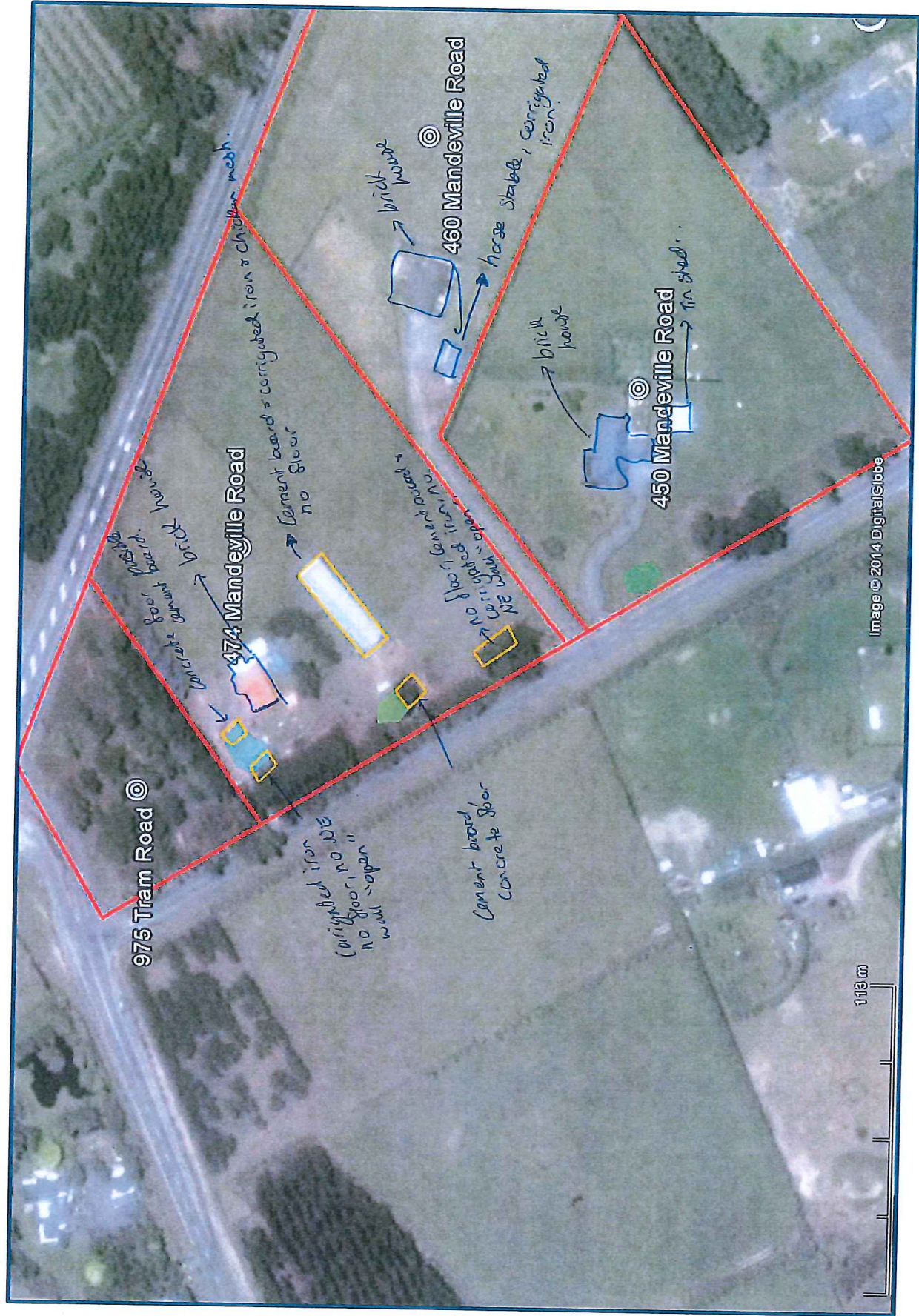
4.0 PHOTO LOG

Record details or notes of photos taken during the site inspection in the following log:

[illegible]

Map 2.

12



Site Observations

Interviews taken by phone on the 9th September.

Steve Hammond (450 Mandeville):

Owned property for approx 14 years, the land use since then has been for grazing & residential. Steve had at maximum 2 cows at a time. No sprays were used on the cows (his ect). no fertilizers or sprays used on lawn to improve its feed. described farming as organic.

Gavin Bennett (460 Mandeville):

Owned land for approx 9 years, land use is for grazing 2 cows at some times but mainly horses. no spray have been used to maintain horses & cattle. no fertilizers or sprays used on the grass to improve it.

Gavin recently bought 933 Tram road from request by the council. 933 Tram road was the old "council waste water site." the terms of him buying the site is that it is remediated. Gavin sent me through all relevant documents

Checklist:

Topography of Region ☐
 Location of Site in Topography ☐
 Topography of Site ☐
 Slope Changes ☐
 Drainage, Seepage ☐
 Vegetation ☐
 Surface Soils ☐
 Outcrops ☐
 Cut or Fill ☐

Trafficability ☐
 Erosion ☐
 Landslips ☐
 Siteworks in Progress ☐
 Nearby Earthworks ☐
 Existing Land Use ☐

Type of Structure on Site ☐
 Type of Structure Near Site, and Condition ☐
 Damage Possibility Due to Ground Problems ☐
 Nearby Pavements - Thickness, type and condition ☐

Nicole Morgan

From: Jennifer Kim <kyeom0517@gmail.com>
Sent: Tuesday, 23 September 2014 12:24 p.m.
To: Nicole Morgan
Subject: Re: Environmental assesment for 474 Mandeville Road

Hi Micole

I left message to you yesterday but does not receiving calling from you.

Anyway I will answer above question by email.

- 1.I owned the property since 2006 April.
2. I have not grown vegetables but the tenants have grown vegetables on the vegetable garden of very small yard.
- 3.I have 5 chickens around 9 months and did not spread any chemical. One tenant had two or three pigs around 1 year.
- 4.No I did not build or demolish any sheds or storage. All the current sheds are as it was.
5. What is a car pit? I do not build and do not use it at all.
- 6.No I did not get any information those things. Only I heard that chicken shed was used around in 1980.
7. The house was tenanted since 2007.
- 8.Before buying the property I heard that the elderly people had lived there. It seems there is no any relevant work to connect to environment activity.

If you have any more question please call 03 963 8309.

Kind regards

Jennifer Kim

On Wed, Sep 17, 2014 at 11:09 AM, Nicole Morgan <Nicole.Morgan@coffey.com> wrote:

Dear Jennifer Kim

As you are aware there are currently geotechnical and environmental investigations being done for you property (474 Mandeville Road) and neighbouring sites. As part of the environmental assessment I have a few questions to ask, I know there are a few questions and some are abit tough but hopefully it won't take too long and if its easier for me to call you can contact me on 021542696.

1. How long have you owned the mentioned property? (dates if able)

PO Box 1872, Christchurch 8140, New Zealand

m: +64 21 542 696



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CILDISCL0005

DAILY FIELD SUMMARY

Project No.	15611AA
Date:	5/9
Page	1 of 1

Project Name: Manderiville plan change
 Field Personnel (Initials): N.M. & S.F.
 Project Manager (Initials): A.H. & B.

Time	Description of Tasks Undertaken: (Include details onsite, all personnel, standby, phone calls)
9:00	Went on site and completed a site walk over, taking pictures of the area and deciding on useful sample areas.
	Completed relevant H.S.E and Task Forms.
11:30	Left site.
	* it was a rainy day during the walkover
	460 fence was locked so had to climb over it.
	Fence was rotten & broke - will need fixing
	no homeowners home at any of the
	properties
	* 10th: Sunny day, no one home at 474,
	owners at 450 & 460 home. Geotech drilling
	at the same time. Fence is now fixed.

FIELD SOIL SCREENING (PID)

Project Name:

Mande rite plan change

Project No.

15611AA

Date:

8/9

Page

1 of 1

Field Personnel (Initials):

NM & S.F

Project Manager (Initials):

A.H & B.R

Equipment Type:

Shovel

Equipment No:

Sample ID	Soil Description (soil type, moisture, colour etc)	Depth (m)	Staining/ Odour (descriptive)	PID (ppm)
S1	Silty SAND, yellow brown	0.1 → 0.2	none	0.0
S2	Silty Sand, yellow brown w black streaks,	approx 1.7 → 1.8m (Shovel) 0.1 → 0.2	yes	2.0
S3	gravely SAND, f-m, pale brown w f-m gravel, minor carbonaceous material	" "	none	0.0
S4	Silty SAND, pale brown w minor f-m gravel.	" "(in pile)	none	0.0
S5	SAND, f-m w some cement board, bricks (whole) & trace gravel	" "(in pile)	none	0.0
S6	Silty SAND, f-m, brown	" "	" "	0.0
S7	Silty SAND, f-m, yellow brown.	" "	" "	0.0
S8	" "	" "	" "	0.0
S9	" "	" "	" "	0.0
S10	Silty SAND, fine-medium, yellowbrown trace gravel.	0.1 → 0.2	" "	0.0
S11	Silty SAND, f-c, gray w some gravel.	" "(in pile)	" "	0.0
S12	Silty SAND, brown, fine-medium.	" "	" "	0.0
S13	" "	" "	" "	0.0
S14	" "	" "	" "	0.0
S15	" "	" "	" "	0.0
S16	" "	" "	" "	0.0
S17	" "	" "	" "	

→ 975 Tram road: owned by WDC, DOC labeled as plantation reserve.

- Asbestos
- Fill / Dirt / rubbish
- Cars, car equipment ect.



- 460 Mandeville rd.
- resource consent (n.d) for irrigation for orchard.
 - Owner has owned the land for 9 years.
 - Horse built then. no market gardening just grazing for 2 cows & new horses, eat natural grass.
 - no evidence of HAZL. during walk over
 - Aerials show possible m.g in 1973.

→ 474 Mandeville Road.

→ email sent to home owner waiting reply.

→ site walkover found.

- 1 car pit (excavated) no floor
- 1 shed in car pits & oils (no floor)
- floor contained ash & black staining no oily stains though
- three sheds (1 chicken coop, 1 horse shed & 1 small shed) all made up from cement bonded (asbestos).
- outside chicken coop was a concrete (possible washing area).
- area where dead pets are buried.
- areas of fill
- areas where fires have been

→ records show that there was a second chicken coop that was removed.

→ 450 Mandeville road.

- no resource consents, possible M.G in 1973
- no evidence of HAZL on site except dirt stockpiles.
- currently has horses/pengs on site. use to own cattle (only two at a time), said they were organic ones with no pesticides used. eat natural grass at the time of buying the land. The land was just empty paddocks.

→ 1973 Aerial shows possible pig farm too. → current horse stable not in aerials

58602
2 OCPs + metals 81450
2 OCPs + metals 8520
2 OCPs + metals 8200
2 OCPs + metals 8123
2 OCPs + metals 8310.00

Appendix B – Site Photographs