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From: "owain@mtt-uk.com -- Owain Davies" <owain@mtt-uk.com>
To: "rt1@glossopcaravans.co.uk" <rt1@glossopcaravans.co.uk>
Cc: Debbie Burgess <debbie@mtt-uk.com>
Date: 01/02/2017 11:51 AM
Subject: WAC Test Report

Good morning Ralph,

Please find attached your test report, the report shows that the material can be sent to an inert waste landfill site.

[sign]

\ without active properties

Please consider the environment before printing the e-mail

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Murray Rix is the trading name of Murray Rix (Northern) Ltd, registered in England No : 2878361, of 33C Vauxhall Industrial Estate, Greg Street, Reddish, Stockport SK5 7BR.

Attachments:



Kind regards
Owain Davies
Deputy Laboratory Manager
Murray Rix
Tel - 0161 475 0870

| | | |
|--|-------------|-------------------------------|
| File: image001.png | Size: 10k | Content Type: image/png |
| File: SKM_C364e17020112560.pdf | Size: 1295k | Content Type: application/pdf |



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Analytical Report Number : 17-38246

| | | | |
|----------------------|---------------------------|------------------------|------------|
| Project / Site name: | Glossop Caravans - TAN UK | Samples received on: | 26/01/2017 |
| Your job number: | | Samples instructed on: | 26/01/2017 |
| Your order number: | 17-110 | Analysis completed by: | 01/02/2017 |
| Report Issue Number: | 1 | Report issued on: | 01/02/2017 |
| Samples Analysed: | 1 10:1 WAC Sample | | |

Signed: 

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed: 

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

| | |
|-----------|---------------------------|
| soils | - 4 weeks from reporting |
| leachates | - 2 weeks from reporting |
| waters | - 2 weeks from reporting |
| asbestos | - 6 months from reporting |

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i2 Analytical
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| Waste Acceptance Criteria Analytical Results | | | | | | | |
|--|---------------------------|--|--|----------|--|---|--------------------------|
| Report No: | 17-38246 | | | | | | |
| | | | | | Client: MURRAYRIX | | |
| Location | Glossop Caravans - TAN UK | | | | | | |
| Lab Reference (Sample Number) | 691513 / 691514 | | | | Landfill Waste Acceptance Criteria | | |
| Sampling Date | 25/01/2017 | | | | Limits | | |
| Sample ID | 68911 TAN UK | | | | Inert Waste Landfill | Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill | Hazardous Waste Landfill |
| Depth (m) | | | | | | | |
| Solid Waste Analysis | | | | | | | |
| TOC (%)** | 1.6 | | | | 3% | 5% | 6% |
| Loss on Ignition (%) ** | 5.5 | | | | -- | -- | 10% |
| BTEX (µg/kg) ** | < 10 | | | | 6000 | -- | -- |
| Sum of PCBs (mg/kg) ** | < 0.007 | | | | 1 | -- | -- |
| Mineral Oil (mg/kg) | < 10 | | | | 500 | -- | -- |
| Total PAH (WAC-17) (mg/kg) | 2.3 | | | | 100 | -- | -- |
| pH (units)** | 7.5 | | | | -- | >6 | -- |
| Acid Neutralisation Capacity (mol / kg) | 1.2 | | | | -- | To be evaluated | To be evaluated |
| Eluate Analysis | 10:1 | | | 10:01 | Limit values for compliance leaching test | | |
| (BS EN 12457 - 2 preparation utilising end over end leaching procedure) | mg/l | | | mg/kg | using BS EN 12457-2 at L/S 10 l/kg (mg/kg) | | |
| Arsenic * | < 0.0011 | | | < 0.0110 | 0.5 | 2 | 25 |
| Barium * | 0.0135 | | | 0.0988 | 20 | 100 | 300 |
| Cadmium * | < 0.0001 | | | < 0.0008 | 0.04 | 1 | 5 |
| Chromium * | 0.0012 | | | 0.0066 | 0.5 | 10 | 70 |
| Copper * | 0.013 | | | 0.095 | 2 | 50 | 100 |
| Mercury * | < 0.0005 | | | < 0.0050 | 0.01 | 0.2 | 2 |
| Molybdenum * | 0.0057 | | | 0.0417 | 0.5 | 10 | 30 |
| Nickel * | 0.0008 | | | 0.0057 | 0.4 | 10 | 40 |
| Lead * | 0.0027 | | | 0.020 | 0.5 | 10 | 50 |
| Antimony * | < 0.0017 | | | < 0.017 | 0.06 | 0.7 | 5 |
| Selenium * | < 0.0040 | | | < 0.040 | 0.1 | 0.5 | 7 |
| Zinc * | 0.0058 | | | 0.043 | 4 | 50 | 200 |
| Chloride * | 0.58 | | | 4.3 | 800 | 4000 | 25000 |
| Fluoride | 0.64 | | | 4.7 | 10 | 150 | 500 |
| Sulphate * | 0.91 | | | 6.6 | 1000 | 20000 | 50000 |
| TDS | 79 | | | 580 | 4000 | 60000 | 100000 |
| Phenol Index (Monohydric Phenols) * | < 0.010 | | | < 0.10 | 1 | - | - |
| DOC | 6.93 | | | 50.8 | 500 | 800 | 1000 |
| | | | | | | | |
| Leach Test Information | | | | | | | |
| | | | | | | | |
| Stone Content (%) | < 0.1 | | | | | | |
| Sample Mass (kg) | 0.51 | | | | | | |
| Dry Matter (%) | 82 | | | | | | |
| Moisture (%) | 18 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Results are expressed on a dry weight basis, after correction for moisture content where applicable | | | | | | | |
| Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation | | | | | | | |
| * = UKAS accredited (liquid eluate analysis only) | | | | | | | |
| ** = MCERTS accredited | | | | | | | |



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Environmental Science

Analytical Report Number : 17-38246**Project / Site name: Glossop Caravans - TAN UK**

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

| Lab Sample Number | Sample Reference | Sample Number | Depth (m) | Sample Description * |
|-------------------|------------------|---------------|---------------|---|
| 691513 | 68911 | TAN UK | None Supplied | Brown loam and clay with gravel and vegetation. |

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The results included within the report are representative of the samples submitted for analysis.

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Environmental Science

Analytical Report Number : 17-38246

Project / Site name: Glossop Caravans - TAN UK

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

| Analytical Test Name | Analytical Method Description | Analytical Method Reference | Method number | Wet / Dry Analysis | Accreditation Status |
|--------------------------------------|--|--|---------------|--------------------|----------------------|
| Acid neutralisation capacity of soil | Determination of acid neutralisation capacity by addition of acid or alkali followed by electronic probe. | In-house method based on Guidance on Sampling and Testing of Wastes to Meet Landfill Waste Acceptance | L046-UK | W | NONE |
| BS EN 12457-2 (10:1) Leachate Prep | 10:1 (as received, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis. | In-house method based on BSEN12457-2. | L043-PL | W | NONE |
| BTEX in soil (Monoaromatics) | Determination of BTEX in soil by headspace GC-MS. | In-house method based on USEPA8260 | L073B-PL | W | MCERTS |
| Chloride 10:1 WAC | Determination of Chloride colorimetrically by discrete analyser. | In house based on MEWAM Method ISBN 0117516260. | L082-PL | W | ISO 17025 |
| Dissolved organic carbon 10:1 WAC | Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser. | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton | L037-PL | W | NONE |
| Fluoride 10:1 WAC | Determination of fluoride in leachate by 1:1 ratio with a buffer solution followed by Ion Selective Electrode. | In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination | L033-PL | W | NONE |
| Loss on ignition of soil @ 450°C | Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace. | In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests | L047-PL | D | MCERTS |
| Metals in leachate by ICP-OES | Determination of metals in leachate by acidification followed by ICP-OES. | In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil | L039-PL | W | ISO 17025 |
| Mineral Oil (Soil) C10 - C40 | Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID. | In-house method | L076-PL | D | NONE |
| Moisture Content | Moisture content, determined gravimetrically. | In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests | L019-UK/PL | W | NONE |
| Monohydric phenols 10:1 WAC | Determination of phenols in leachate by distillation followed by colorimetry. | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton | L080-PL | W | ISO 17025 |
| PCB's By GC-MS in soil | Determination of PCB by extraction with acetone and hexane followed by GC-MS. | In-house method based on USEPA 8082 | L077-PL | D | MCERTS |
| pH in soil | Determination of pH in soil by addition of water followed by electrometric measurement. | In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests | L005-PL | W | MCERTS |
| Speciated WAC-17 PAHs in soil | Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. | In-house method based on USEPA 8270 | L064-PL | D | NONE |
| Stones content of soil | Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight. | In-house method based on British Standard Methods and MCERTS requirements. | L019-UK/PL | D | NONE |
| Sulphate 10:1 WAC | Determination of sulphate in leachate by ICP-OES | In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil | L039-PL | W | ISO 17025 |
| Total dissolved solids 10:1 WAC | Determination of total dissolved solids in water by electrometric measurement. | In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton | L004-PL | W | NONE |
| Total organic carbon in soil | Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate. | In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests | L023-PL | D | MCERTS |

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Environmental Science

Analytical Report Number : 17-38246

Project / Site name: Glossop Caravans - TAN UK

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

| Analytical Test Name | Analytical Method Description | Analytical Method Reference | Method number | Wet / Dry Analysis | Accreditation Status |
|----------------------|-------------------------------|-----------------------------|---------------|--------------------|----------------------|
|----------------------|-------------------------------|-----------------------------|---------------|--------------------|----------------------|

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Sample Deviation Report



| Sample ID | Other ID | Sample Type | Job | Sample Number | Sample Deviation Code | Test Name | Test Ref | Test Deviation code |
|-----------|----------|-------------|----------|---------------|-----------------------|------------------------------|----------|---------------------|
| 68911 | TAN UK | S | 17-38246 | 691513 | b | BTEX in soil (Monoaromatics) | L073B-PL | b |
| 68911 | TAN UK | S | 17-38246 | 691513 | b | Total BTEX in soil (Poland) | L073-PL | b |

Key: a - No sampling date b - Incorrect container
c - Holding time d - Headspace e - Temperature