

2722/WH/0706

ASBESTOS SURVEY REPORT

BUILDING SURVEYED:

Second Severn Crossing
M4
South Wales



FOR:
Laing O'Rourke
SURVEYED ON:
18th – 20th July 2006

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1: REPORT DETAILS

SURVEY CONSULTANTS	-	Shield Environmental Services Ltd. (Surveying Division) Shield House, Caxton Business Park, Crown Way, Warmley, Bristol, BS30 8XJ
SURVEY CONDUCTED BY	-	Wayne Hick
SUPERVISED BY	-	Kevin Staniforth
SURVEY DATE(S)	-	18 th – 20 th July 2006
REPORT DATE	-	30 th August 2006
REPORT ISSUED	-	31 st August 2006
REPORT REFERENCE	-	2722/WH/0706
CLIENT	-	Laing O'Rourke Severn Bridge, Maintenance Unit, Bridge Access Road Aust, Bristol, BS35 4BD
CLIENT CONTACT	-	Mr John Sidebotham

REPORT REVIEWED BY	-	Jon House
SIGNED	-	

Please note Shield Environmental Services Ltd (Surveying Division) cannot be held responsible for the way in which the Client may interpret or act upon the results of this report.

2: SUMMARY

A Type 2 Standard Sampling Asbestos Survey, carried out in accordance with in-house asbestos surveying procedures and HSE guidance document MDHS 100 was conducted to the Second Severn Crossing, M4, South Wales.

The survey was carried out by Shield Environmental Services Ltd (Surveying Division) on behalf of Laing O' Rourke on 18th – 20th July 2006.

The purpose of this survey was to locate, as far as reasonably practicable, the presence and extent of all suspected Asbestos Containing Materials (ACMs) in the building(s) and assess their condition.

During the survey no samples of suspected ACMs were taken for analysis.

ACMs were presumed in the form of:

- Friction product (e.g brakes, clutch plates, drive belts).

3: AN INTRODUCTION TO ASBESTOS

What is Asbestos?

Asbestos is the collective term used to describe a family of several types of naturally occurring mineral rock. The three main types of asbestos minerals are commonly called Blue (Crocidolite), Brown (Amosite) and White (Chrysotile).

How does Asbestos get into the body?

Asbestos fibres enter the body through inhalation via the nose and mouth from where they can pass into lungs and attack the respiratory system.

Why is Asbestos dangerous?

Exposure to asbestos fibres can lead to the development of one of three fatal diseases:

- Asbestosis (scarring of the lung)
- Lung cancer
- Mesothelioma (cancer of the lung and stomach lining)

According to the Health and Safety Executive (HSE), such diseases are currently responsible for almost 3000 deaths a year in the UK, a quarter of which are people who worked in the building trade. Research undertaken by Professor Julian Peto and HSE epidemiologists in 1995 suggests that this figure could increase to more than 10,000 deaths per year by 2020.

Where is Asbestos found in buildings?

Due to their distinct chemical, mechanical and physical characteristics, significant amounts of asbestos were used over the last century in the construction of industrial, commercial and domestic properties throughout the UK. Its most common uses were:

- Sprayed asbestos (limpet) on steelwork
- Thermal insulation (lagging) on pipework and boilers.
- Asbestos insulating board (AIB) ceiling tiles, wall panels, firebreaks and soffits.
- Asbestos cement products corrugated sheeting, heater flue pipes and rainwater goods.
- Other products including floor tiles, decorative coatings, mastics/sealants, pipework gaskets and roofing felt containing asbestos.

Who is currently at risk?

All occupants of buildings containing asbestos where it is not appropriately managed, and particularly building maintenance workers such as plumbers, carpenters, electricians, computer/cabling installers and telecommunication engineers, all whom may routinely disturb asbestos materials in their day to day work. Accumulated over time such repeated exposures could lead to the development of asbestos related diseases.

3: AN INTRODUCTION TO ASBESTOS (continued)

New Regulations

In response to the risks of exposure to asbestos, the Government introduced the Control of Asbestos at Work Regulations (CAW) 2002 in October 2002. The aim is to ensure that all materials that contain asbestos are identified and managed in a way that protects employees and other users of buildings from these risks.

Regulation 4 of CAW 2002, requires the "Duty Holder"* of all non-domestic properties to produce a written management plan specifying the measures to be taken to control and manage the risks posed by exposure to asbestos-containing materials in their premises.

The Duty Holder is responsible for:

- Assessing whether premises contain asbestos;
- Assessing the risk from asbestos; and
- Taking action to manage the risk from asbestos.

The Regulations are now in force and require an Asbestos Management plan to of been in place for every workplace since May 2004.

*The "Duty Holder" is primarily the person who has maintenance and repair responsibilities for the premises in question through contract or tenancy or where there is no contract or tenancy the duty falls to the person in control of a premises.

4: INTRODUCTION

Shield Environmental Services Ltd (Surveying Division) has been instructed to carry out an asbestos survey by; Laing O' Rourke (Mr John Sidebotham).

To ascertain the possibility of any asbestos containing materials within;
Second Severn Crossing, M4, South Wales.

Description of Site

The new Severn Bridge consists of three main sections; Gwent, Avon and the Main Span, each of which are subdivided into respective north & South viaducts.

Survey Type

The nature of the survey is a Type 2 Standard Sampling Survey as detailed in HSE publication MDHS 100 Surveying, Sampling and Assessment of Asbestos Containing Materials. The purpose of the survey is to locate, as far as reasonably practicable, the presence and extent of any suspect ACMs in the building and assess their condition.

This report presents the findings of the survey and analysis reports of any bulk samples taken.

5: SCOPE OF SURVEY

- Areas Included in the Survey:
 - All areas of the Second Severn Crossing.
- Areas Excluded from the Survey:
 - None.
- Inaccessible areas encountered during the time of the survey, for which no information was obtained:
 - Electrical switch gear and plant equipment – No access due to their live status.
- Variations or Deviations from the standard MDHS 100 method:
 - None.
- Comments / Exclusions:
 - See above comments.

FLOOR PLANS

Where provided floor plans should be regarded as sketch-plans and for identification purposes only. They are intended to provide a visual appreciation of the buildings surveyed, showing locations of suspected ACMs, areas of no access and where samples were taken.

6: LIMITATIONS OF THE REPORT

This report only relates to the situation on the day(s) of the inspection and cannot take into account subsequent changes in circumstances. Materials were only sampled where the surveyor considered there was a high probability that they may contain asbestos. This report contains findings based upon visual inspection and results of laboratory analysis. During the course of the survey all reasonable efforts were made to identify the presence of asbestos containing materials within the surveyed areas.

The scope of work requested is limited to the areas as identified by the client.

However, asbestos containing materials are sometimes concealed within the fabric of a building or within sealed building voids, so it is not always possible to regard the findings of any survey as being definitive. Therefore, it must always remain a possibility that further asbestos containing materials may be found during any alteration, refurbishment or demolition works.

Where areas have been identified as inaccessible within the report, it indicates that the area specified was not accessible to the surveyor at the time of the inspection, either because such areas were locked or to gain entry would require an unreasonable degree of dismantling to the structure of the building. The client is therefore advised to the possibility of there being asbestos containing materials in such areas.

Manufactured products containing asbestos have been extremely diverse. Therefore, responsibility cannot be accepted for any consequential loss or damage resulting from non-recognition of a material that is later established as having an asbestos content.

Figures quoted in the asbestos register detailing the extent of ACMs are approximate based on visual inspection on the day of the survey and should be used as a guide only.

No responsibility can be taken for any misinterpretation of this report by third parties.

Please Note:

The completion of this Type 2 (Sampling) Survey report does not negate the Duty Holders responsibility to commission a Type 3 (Demolition / Major Refurbishment) Survey prior to the commencement of any alteration, refurbishment or demolition works.

7: SURVEY METHOD

The survey is conducted in accordance with our in-house asbestos surveying procedures and HSE guidance document MDHS 100. Where appropriate, bulk samples of suspected ACMs are taken from the property.

Representative samples are also taken of any materials that may be confused with ACMs. Sampling location stickers, bearing the individual samples unique identification number, are applied to all sample points where practicable, for future reference.

Products that are very unlikely to contain asbestos are not sampled (e.g. wall paper, plasterboard, chipboard, wood etc).

All samples taken are sent to a UKAS Accredited Laboratory for analysis by polarised light microscopy (PLM) as per the method prescribed in HSG248 Asbestos: The analysts' guide for sampling, analysis and clearance procedures. Completed bulk sample analysis test reports for all samples taken are appended for client review.

A Survey Report Form (SRF) is completed for each suspect sample taken, for materials strongly presumed to contain asbestos (i.e. materials visually similar to positively identified ACMs) and for areas presumed to contain asbestos (i.e. areas where no access could be gained at the time of the survey and non-accessed items of (electrical) equipment and plant.

Each SRF contains a colour photograph, individual material risk assessment scores (as prescribed under MDHS 100), management recommendations and general observations / comments (where appropriate).

The SRFs are combined together to form a site-specific asbestos register.

8: MATERIAL RISK ASSESSMENT

The new duty to manage asbestos in work place premises under CAW 2002 requires a written plan to be produced, specifying measures to be taken to control and manage the risk from identified, presumed and strongly presumed ACMs. An important stage of this process is to assess the potential for fibre release of each ACM found. To help make the assessment in a structured and recordable way, an in house standard material assessment algorithm has been developed in accordance with MDHS 100 to establish a management priority.

The four main parameters, which determine the amount of fibre release from an ACM when subject to standard disturbance, are:

- Product Type
- Extent of Damage or Deterioration
- Surface Treatment
- Asbestos Type

Each parameter is scored as: high = 3, medium = 2 or low = 1 (Very low); two categories also allow a nil score. The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACMs are scored as Crocidolite (3), unless analysis or similar samples from the building shows a different asbestos type, or there is a reasoned argument that another type of asbestos was almost always used.

The potential for fibre release, based on total score are assessed accordingly:

Assessment Score	Potential for Fibre Release
>10	High
7 to 9	Medium
5 to 6	Low
>4	Very Low

Non-asbestos materials are not scored.

Samples found not to contain asbestos after analyses are recorded as NAD (No Asbestos Detected).

Where ACMs are presumed to be present and have not been identified due to access restrictions, it is strongly recommended that these areas be tested for ACMs prior to any work commencing.

Material Risk Assessment Algorithm scores are reported in individual SRFs.

Comments regarding the likelihood of disturbance to ACMs are also included in individual SRFs where applicable. Accessibility / Vulnerability are classified as follows:

VERY LOW	-	Usually inaccessible or unlikely to be disturbed.
LOW	-	Occasionally likely to be disturbed.
MEDIUM	-	Easily disturbed.
HIGH	-	Routinely disturbed.

9: MANAGEMENT OF ASBESTOS

Recommended management and control actions are provided for each ACM identified, presumed or strongly presumed. They are obtained by combining the results of individual material risk assessment scores with site-specific criteria identified by the surveyor during the course of the survey and in consultation with the client.

Site factors taken into account may include maintenance activity, occupant activity, likelihood of disturbance and human exposure potential (i.e. number of occupants / frequency of use / average time area is in use).

Recommended management and control actions are provided on each SRF where applicable, examples of which are detailed below.

Management Actions

Communicate with employees, contractors and others.

Monitor condition of the ACM (Regular Inspection / Maintain and up date logs of ACMs).

Put a safe system of work in place (Operate a permit to work system).

Control Actions

Label the ACM (Use approved warning signs or adopt colour code system).

Protect / enclose the ACM.

Seal / encapsulate the ACM.

Repair the ACM.

Remove the ACM.

Restrict Access / Isolate ACM.

Please note any management or control actions provided by Shield Environmental Services Ltd (Surveying Division) must be treated as recommendations only.

Further guidance for duty holders responsible for producing a management plan for ACMs can be obtained from the HSE publication: -

- A Comprehensive Guide to Managing Asbestos in Premises (HSG 227).


10: GENERAL EXCLUSIONS

1. The survey was limited to those areas accessed at the time of the Survey.
2. We have not inspected flues, ducts voids or any similarly enclosed areas, the access to which necessitated the use of specialist equipment or tools, or which would have caused damage to decoration, fixtures, fittings or the structure. Therefore we are unable to report on any asbestos as may be present in these areas.
3. We have not inspected any areas or surfaces that would require the removal or relocation of carpets, furniture, blinds, curtains, fixtures etc.
4. We have not inspected any part requiring specialist access equipment other than using stepladders to a maximum height of 3 metres. Any requirement for specialist access equipment has been specifically excluded unless otherwise stated.
5. We have not reported on concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility or insufficient knowledge of the structure at the time of the survey.
6. No responsibility is accepted for the presence of asbestos in voids (under floor, floor, wall or ceiling) other than those opened up during the investigation.
7. Samples have not been taken where the act of sampling would endanger the surveyor or affect the functional integrity of the item concerned. For example; fuses within electrical boxes, gaskets, fire doors, and ropes associated with heating, glazing or power plant etc.
8. Representative bulk samples have been taken from all materials, which upon visual inspection appeared likely to contain asbestos.
9. A limited inspection only has been carried out of pipework concealed by overlying non-asbestos insulation. Inspection of pipework has been restricted primarily to the insulation visible. The presence of asbestos debris to pipework, which is not readily visible or would require the full removal and replacement of overlying insulation, has therefore not been investigated.
10. Manufactured products containing asbestos have been extremely diverse, therefore responsibility cannot be accepted for any consequential loss or damage resulting from non-recognition of a material which is later established as having an asbestos content. Certain 'Artex' type textured coatings and decorative plasters may contain very small quantities of asbestos. In situ, these coatings are often composed of different batches of product or may have been repaired/patched at different times. It is, therefore, possible that any 'Artex' samples taken may not be representative of the entire coating. Recent research suggests that in some cases, the fibres may have diameters below 0.1 μm . These may not be visible by the optical microscopy method described in HSE publications HSG248.

11: REFERENCES

1. The Control of Asbestos at Work Regulations (CAW) 2002 - The Stationary Office 2002, ISBN 0 7176 2382.
2. Surveying, Sampling and Assessment of Asbestos Containing Materials (MDHS 100) – HSE Books 2001, ISBN 0 7176 2076X.
3. A Comprehensive Guide to Managing Asbestos in Premises (HSE 2002, HSG 227, ISBN 0 7176 2381 5).
4. Asbestos: The analysts' guide for sampling, analysis and clearance procedures (HSG248, ISBN 0-7176-2875-2).


12: ASBESTOS REGISTER

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	1	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		South Viaduct								
POSITION:		Piers 40 – 48								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 40-48.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18th – 20th July 2006	SRF	PAGE	2	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	South Viaduct Avon						
POSITION:	Sub-station P – 6						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed Units						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18th – 20th July 2006	SRF	PAGE	3	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	South Viaduct Avon						
POSITION:	Sub-station P – 5						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	4	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		South Viaduct Avon								
POSITION:		Piers 33 – 59								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 33-59.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	5	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		South Viaduct Avon								
POSITION:		Piers 26 – 32								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 26-32.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18th – 20th July 2006	SRF	PAGE	6	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	South Viaduct Avon						
POSITION:	Sub-station P – 4 – Pylon – Ms						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed Units						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	7	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		Main Span								
POSITION:		Walkways								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the Main Span.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	8	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		North Viaduct Avon								
POSITION:		Pier 26 – 33								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 26-33.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	9	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		North Viaduct Avon								
POSITION:		Piers 34 – 41								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 34-41.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18 th – 20 th July 2006	SRF	PAGE	10	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	Ground Floor						
POSITION:	Avon Electrical Building						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed Units						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	11	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		North Viaduct Gwent								
POSITION:		Piers 42 – 48								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 42-48.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18th – 20th July 2006	SRF	PAGE	12	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	North Viaduct Gwent						
POSITION:	Sub-station P – 1						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed Units						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	13	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		North Viaduct Gwent								
POSITION:		Piers 1 – 8								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 1-8.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	14	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		North Viaduct Gwent								
POSITION:		Piers 9 – 16								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 9-16.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	15	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		North Viaduct Gwent								
POSITION:		Piers 17 – 23								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 17-23.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18 th – 20 th July 2006	SRF	PAGE	16	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	North Viaduct Gwent						
POSITION:	Sub-station P – 2						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed Units						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18 th – 20 th July 2006	SRF	PAGE	17	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	North Viaduct Gwent						
POSITION:	Sub-station P – 3 Pylon M – 1						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed Units						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706	SITE: Second Severn Crossing, M4, South Wales	Date: 18 th – 20 th July 2006	SRF	PAGE	18	OF	25
SAMPLE NO:	No Sample Taken Due To Live Status						
LOCATION:	Ground Floor						
POSITION:	Avon Fire Main Pumping Station						
DESCRIPTION:	Electrical Switchgear						
PRODUCT TYPE:	Unknown						
EXTENT (APPROX):	Unknown						
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected	Presumed To Contain Asbestos						
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High	Low						
SURFACE TREATMENT:	Sealed Units						

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access to electrical switch gear due to its live status, therefore presumed to contain asbestos. Exercise caution until full content can be established.					


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	19	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		South Viaduct Gwent								
POSITION:		Piers 16 – 23								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 16-23.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	20	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		South Viaduct Gwent								
POSITION:		Piers 8 – 15								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 8-15.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	21	OF	25
SAMPLE NO:		No Sample Taken								
LOCATION:		South Viaduct Gwent								
POSITION:		Piers 1 – 7								
DESCRIPTION:		Not Applicable								
PRODUCT TYPE:		Not Applicable								
EXTENT (APPROX):		Not Applicable								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed Not To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Not Applicable								
SURFACE TREATMENT:		Not Applicable								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No visible suspect or presumed ACMs observed within the pier 1-7.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	NO ACTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	22	OF	25
SAMPLE NO:		No Sample Taken No Access								
LOCATION:		Main Span Gantry								
POSITION:		Brakes								
DESCRIPTION:		Brake Lining								
PRODUCT TYPE:		Unknown								
EXTENT (APPROX):		Unknown								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Unknown								
SURFACE TREATMENT:		Unknown								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access gained to brakes, therefore presumed to contain asbestos. Exercise caution until full content can be established.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	23	OF	25
SAMPLE NO:		No Sample Taken No Access								
LOCATION:		Viaduct Gantry Gwent								
POSITION:		Brakes								
DESCRIPTION:		Brake Lining								
PRODUCT TYPE:		Unknown								
EXTENT (APPROX):		Unknown								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Unknown								
SURFACE TREATMENT:		Unknown								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		

TOTAL SCORE
NOT APPLICABLE

(A+B+C+D = (1-4 Very Low)
(5-6 Low) (7-9 Medium) (>10 High)

**MATERIAL ASSESSMENT
PRIORITY**
NOT APPLICABLE

COMMENTS: No access gained to brakes, therefore presumed to contain asbestos. Exercise caution until full content can be established.


RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	24	OF	25
SAMPLE NO:		No Sample Taken No Access								
LOCATION:		Viaduct Gantry Avon								
POSITION:		Brakes								
DESCRIPTION:		Brake Lining								
PRODUCT TYPE:		Unknown								
EXTENT (APPROX):		Unknown								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Unknown								
SURFACE TREATMENT:		Unknown								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access gained to brakes, therefore presumed to contain asbestos. Exercise caution until full content can be established.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

SURVEY REF NO. 2722/WH/0706		SITE: Second Severn Crossing, M4, South Wales		Date: 18 th – 20 th July 2006		SRF	PAGE	25	OF	25
SAMPLE NO:		No Sample Taken No Access								
LOCATION:		Rapid Access Train (RAT)								
POSITION:		Brakes								
DESCRIPTION:		Brake Lining								
PRODUCT TYPE:		Unknown								
EXTENT (APPROX):		Unknown								
LEVEL OF IDENTIFICATION: Presumed, Strongly Presumed, No Asbestos Detected, Asbestos Detected		Presumed To Contain Asbestos								
ACCESSIBILITY / VULNERABILITY: Very Low, Low, Medium, High		Unknown								
SURFACE TREATMENT:		Unknown								

Material Assessment Algorithm

A Product Type			B Extent of Damage/Deterioration			C Surface Treatment			D Asbestos Type		
1		Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints, decorative finishes, asbestos cement etc)	0		Good condition: no visible damage	0		Composite materials containing asbestos: Reinforced plastics, resins, vinyl tiles, painted or asbestos cement (with exposed face painted or encapsulated)	1		Chrysotile (White)
2		Asbestos insulating board, millboards, other low-density insulation boards, asbestos textiles, gaskets, ropes, woven textiles, asbestos paper and felt.	1		Low damage: a few scratches or surface marks; broken edges on boards, tiles, etc.	1		Enclosed sprays and lagging, AIB (with exposed face painted or encapsulated), unsealed asbestos cement sheets etc.	2		Amphibole asbestos (Amosite (Brown), Actinolite, Anthophyllite, Tremolite)
3		Thermal insulating (e.g. pipe and boiler lagging) sprayed asbestos, loose asbestos, asbestos mattresses and packing.	2		Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibre.	2		Unsealed AIB, or encapsulated lagging and sprays.	3		Crocidolite (Blue)
			3		High damage or delaminating: of materials, sprays and thermal insulation. Visible asbestos debris.	3		Unsealed lagging and sprays.			
A			B			C			D		
TOTAL SCORE NOT APPLICABLE (A+B+C+D = (1-4 Very Low) (5-6 Low) (7-9 Medium) (>10 High)			MATERIAL ASSESSMENT PRIORITY NOT APPLICABLE			COMMENTS: No access gained to brakes, therefore presumed to contain asbestos. Exercise caution until full content can be established.					

RECOMMENDATIONS	ENCAPSULATE	REPAIR	LABEL	PROTECT / ENCLOSE	RESTRICT ACCESS	MONITOR CONDITION	REMOVE	EXERCISE CAUTION
DATE ACTION TAKEN	DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION		DATE OF NEXT INSPECTION	

2722/WH/0706

12: PLANS

KEY

(SRF 001) →

(NO ACCESS SRF 002) →

Asbestos Containing Materials (ACMs) presumed, strongly presumed or identified as containing asbestos and for areas where no access has been gained indicated using *red text*.

(SRF 003) →

Materials presumed, strongly presumed or identified as not containing asbestos indicated using *black text*.

PLAN 1 – SECOND SEVERN CROSSING **M4, SOUTH WALES**

