





Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment Water Wastewater Geotechnical Civil Management			
Drawn:	DD		Tuflow Model Results – Scenario A1 Flood Height: Closed lagoon entrance, 1 in 100 year catchment flood & 1 in 20 year ocean level			
Approved:	DMM					
Date:	04.09.13					
Scale:	nts					
			FIGURE 2			
			Job No: P1303896			



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		TufLOW Model Results – Scenario A1 Flood Velocity: Closed lagoon entrance, 1 in 100 year catchment flood & 1 in 20 year ocean level					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 3					
			Job No: P1303896					



KEY

- Low hydraulic flood hazard
- High hydraulic flood hazard

In accordance with NSW Floodplain Management Guideline.

Drawn:	DD
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Date:	04.09.13
Scale:	nts

ABN 85 070 240 890

Environment Water Wastewater Geotechnical Civil Management	
Tuflow Model Results – Scenario A1 Flood Hazard: Closed lagoon entrance, 1 in 100 year catchment flood & 1 in 20 year ocean level	FIGURE 4
Job No: P1303896	



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment Water Wastewater Geotechnical Civil Management	
Drawn:	DD		Tuflow Model Results – Scenario A2 Flood Depth: Closed lagoon entrance, 1 in 20 year catchment flood & 1 in 100 year ocean level	
Approved:	DMM			
Date:	04.09.13			
Scale:	nts			
			FIGURE 5	
			Job No: P1303896	



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment Water Wastewater Geotechnical Civil Management			
Drawn:	DD		TufLOW Model Results – Scenario A2 Flood Height: Closed lagoon entrance, 1 in 20 year catchment flood & 1 in 100 year ocean level			
Approved:		DMM				
Date:		04.09.13				
Scale:		nts				
			FIGURE 6			
			Job No: P1303896			



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment Water Wastewater Geotechnical Civil Management			
Drawn:	DD		Tuflow Model Results – Scenario A2 Flood Velocity: Closed lagoon entrance, 1 in 20 year catchment flood & 1 in 100 year ocean level			
Approved:	DMM					
Date:	04.09.13					
Scale:	nts					
			FIGURE 7			
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KEY

Low hydraulic flood hazard

High hydraulic flood hazard

In accordance with NSW Floodplain Management Guideline.

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Environment Water Wastewater Geotechnical Civil Management	
Tuflow Model Results – Scenario A2 Flood Hazard: Closed lagoon entrance, 1 in 20 year catchment flood & 1 in 100 year ocean level	
FIGURE 8	
Job No: P1303896	



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		Tuflow Model Results – Scenario A3 Flood Depth: Closed lagoon entrance, 1 in 100 year catchment flood & neap tides					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 9					
			Job No: P1303896					



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		Tuflow Model Results – Scenario A3 Flood Height: Closed lagoon entrance, 1 in 100 year catchment flood & neap tides					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 10					
			Job No: P1303896					



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Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		Tuflow Model Results – Scenario A3 Flood Velocity: Closed lagoon entrance, 1 in 100 year catchment flood & neap tides					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 11					
			Job No: P1303896					



KEY

Low hydraulic flood hazard

High hydraulic flood hazard

In accordance with NSW Floodplain Management Guideline.

Martens & Associates Pty Ltd ABN 85 070 240 890

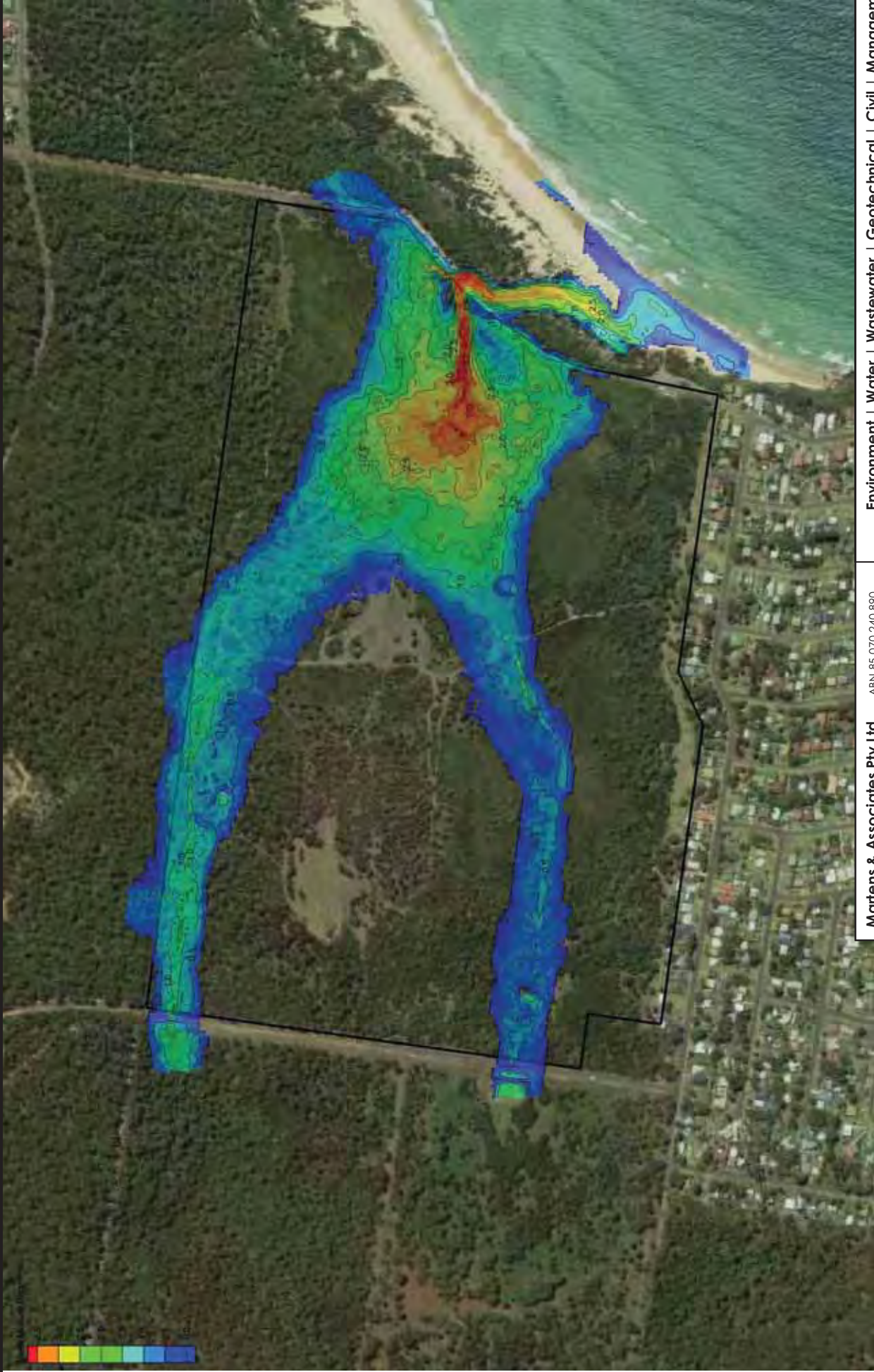
Drawn:	DD
Approved:	DMM
Date:	04.09.13
Scale:	nts

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**Tuflow Model Results – Scenario A3 Flood Hazard:
Closed lagoon entrance, 1 in 100 year catchment flood &
neap tides**

FIGURE 12

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Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		Tuflow Model Results – Scenario A4 Flood Depth: Closed lagoon entrance, Probable Maximum catchment flood & neap tides					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 13					
			Job No: P1303896					



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		Tuflow Model Results – Scenario A4 Flood Height: Closed lagoon entrance, Probable Maximum catchment flood & neap tides					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 14					
			Job No: P1303896					



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		TufLOW Model Results – Scenario A4 Flood Velocity: Closed lagoon entrance, Probable Maximum catchment flood & neap tides					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 15					
			Job No: P1303896					



KEY

Low hydraulic flood hazard

High hydraulic flood hazard

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Scale:	nts

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Tuflow Model Results – Scenario A4 Flood Hazard:
Closed lagoon entrance, Probable Maximum catchment
flood & neap tides

FIGURE 16



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:		DD	TufLOW Model Results – Scenario B1 Flood Depth: Open lagoon entrance, 1 in 100 year catchment flood & 1 in 20 year ocean level					
Approved:		DMM						
Date:		04.09.13						
Scale:		nts						
			FIGURE 17					
			Job No: P1303896					



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment	Water	Wastewater	Geotechnical	Civil	Management
Drawn:	DD		Tuflow Model Results – Scenario B1 Flood Height: Open lagoon entrance, 1 in 100 year catchment flood & 1 in 20 year ocean level					
Approved:	DMM							
Date:	04.09.13							
Scale:	nts							
			FIGURE 18					
			Job No: P1303896					



Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment Water Wastewater Geotechnical Civil Management			
Drawn:	DD		TufLOW Model Results – Scenario B1 Flood Velocity: Open lagoon entrance, 1 in 100 year catchment flood & 1 in 20 year ocean level			
Approved:	DMM					
Date:	04.09.13					
Scale:	nts					
			FIGURE 19			
			Job No: P1303896			



KEY

Low hydraulic flood hazard

High hydraulic flood hazard

In accordance with NSW Floodplain Management Guideline.

Drawn: DD

Approved: DMM

Date: 04.09.13

Scale: nts

Martens & Associates Pty Ltd

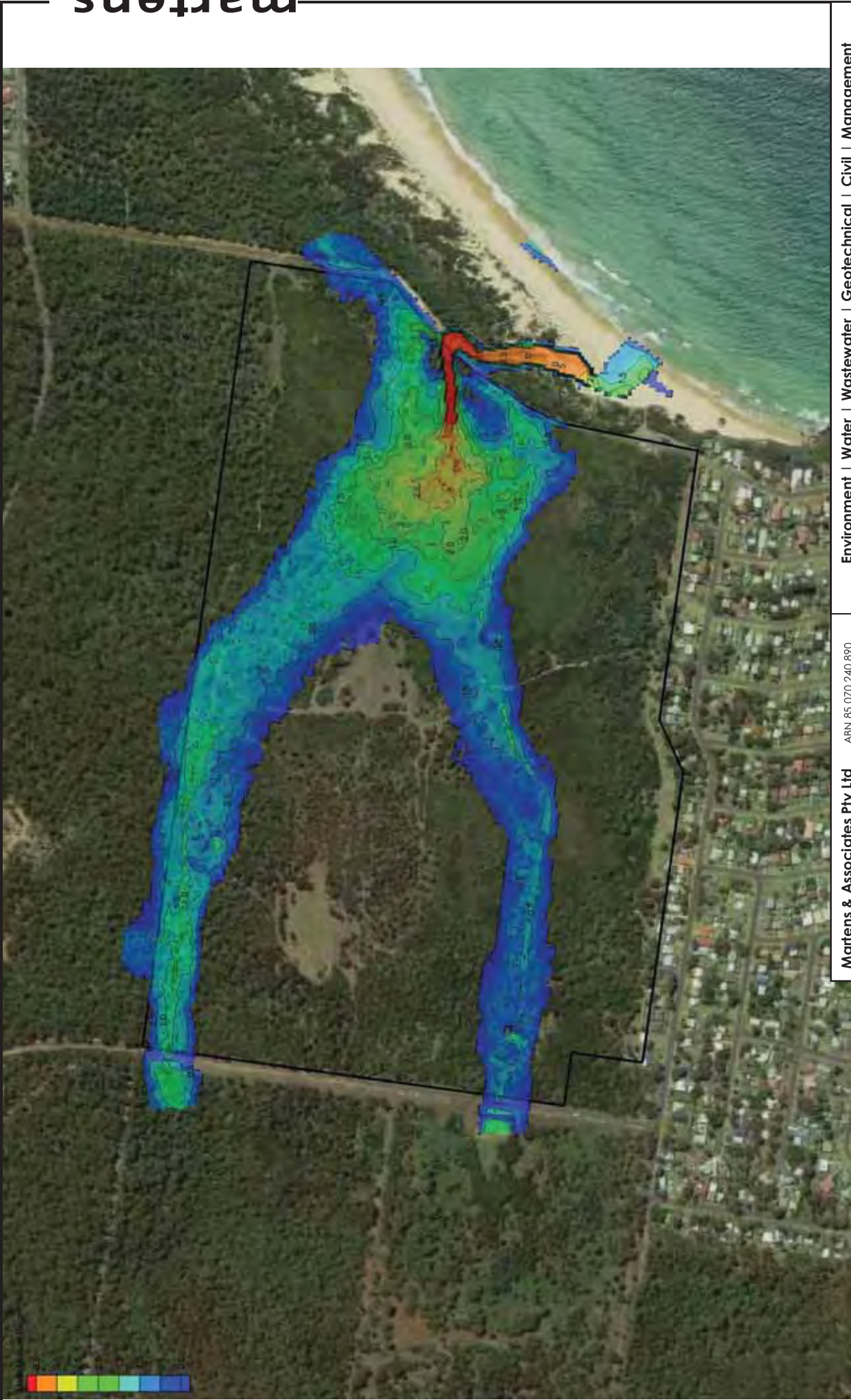
ABN 85 070 240 890

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Tuflow Model Results – Scenario B1 Flood Hazard:
Open lagoon entrance, 1 in 100 year catchment flood & 1
in 20 year ocean level

FIGURE 20

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Martens & Associates Pty Ltd		ABN 85 070 240 890	Environment Water Wastewater Geotechnical Civil Management	
Drawn:	DD		TufLOW Model Results – Scenario B2 Flood Depth: Open lagoon entrance. Probable Maximum catchment flood & neap tides	
Approved:	DMM			
Date:	04.09.13			
Scale:	nts			
			FIGURE 21	
			Job No: P1303896	