

**WORKER CRUSHED BETWEEN LOADERS**

Type of Incident: Fatality

Date of Incident: June 13, 2009

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**SECTION 1.0            DATE AND TIME OF INCIDENT**

1.1                      June 13, 2009 at approximately 10:00 a.m.

**SECTION 2.0            NAME AND ADDRESS OF PRINCIPAL PARTIES**

**2.1                      Owner(s)**

2.1.1                    City of Calgary  
Alberta

**2.2                      Prime Contractor**

2.2.1                    Volker Stevin Contracting Ltd.  
4540-54<sup>th</sup> Avenue SE  
Calgary, Alberta  
T2H 1Y3

**2.3                      Employer(s)**

2.3.1                    Volker Stevin Contracting Ltd.  
4540-54<sup>th</sup> Avenue SE  
Calgary, Alberta  
T2H 1Y3

**2.4                      Worker(s)**

2.4.1

**2.5                      Others**

2.5.1                    Calgary Police Services  
133 – 6<sup>th</sup> Avenue S.E.  
Calgary, Alberta  
T2G

### **SECTION 3.0 DESCRIPTION OF PRINCIPAL PARTIES**

- 3.1 Volker Stevin Contracting Ltd. is a privately owned Calgary based road construction company and employs approximately 700 workers. The parent company is Volker Wessels from the Netherlands, which is an international company with approximately 20,000 employees specializing in construction, engineering and design work.
- 3.2 Volker Stevin Contracting Ltd. was the prime contractor and the employer. At the time of the incident, all workers at the site were employed by Volker Stevin Contracting Ltd.
- 3.3 The City of Calgary was the owner of the site.
- 3.4 The deceased worker ) was a pipe layer and had been employed by the Volker Stevin Contracting Ltd. for approximately 16 years. He worked as a foreman for Volker Stevin Contracting Ltd. in 2008.

### **SECTION 4.0 LOCATION OF INCIDENT**

- 4.1 The incident occurred at a road construction site located on 52 Street SE between 114 Avenue SE and 130 Avenue SE, Calgary, Alberta (Refer to Attachment A-Map, Attachment B - Sketch and Attachment C- Photographs 1 and 2).

### **SECTION 5.0 EQUIPMENT, MATERIAL AND OBSERVATIONS**

#### **5.1 Equipment and Material**

- 5.1.1 The tracked loader involved in the incident was 2003 Komatsu, D 75S – 5 Dozer Shovel, unit # 147 with the serial number 166632. A ripper was attached to the back of the loader (Refer to Attachment C - Photographs 3 and 4).
- 5.1.2 The second wheel loader involved in the incident was a 2002 Caterpillar, 950 G Series II, unit # F 127 with a serial number 15731.
- 5.1.3 At the time of the incident, a 600 Komatsu tracked excavator was also on the 52 Street SE.

#### **5.2 Observations**

- 5.2.1 At the time of the incident it was sunny and clear with a temperature of 20 °C

### **SECTION 6.0 NARRATIVE DESCRIPTION OF THE INCIDENT**

- 6.1 On June 13, 2009 at approximately 9:00 a.m., the tracked excavator operator ( ) positioned the tracked excavator on the asphalt surface of the 52 Street SE. He scooped up previously cut asphalt and deposited it on the side of the road (Asphalt 1 on the Sketch). After removing asphalt, he began scooping up soil and depositing it on the asphalt surface behind him.
- 6.2 The tracked loader operator ( ) was in the process of picking up the deposited asphalt (Asphalt 1 on the Sketch) and moving to another location (Asphalt 2 in the Sketch). The tracked loader operator ( ) backed away from the asphalt pile whenever the tracked excavator operator ( ) rotated the excavator bucket to unload the excavated material.
- 6.3 The wheel loader operator ( ) was moving the asphalt deposited by the tracked loader (Asphalt 2 in the Sketch) to another location (Asphalt 3 on the Sketch).
- 6.4 The foreman ( ), who was observing the site activities, instructed the pipe layer ( ) to send the wheel loader to assist a water truck in rough terrain.
- 6.5 At approximately 10:00 a.m., the pipe layer ( ) saw that the wheel loader was near the third asphalt pile (Asphalt 3 on the Sketch) and walked towards the wheel loader waving his arms to get the attention of the operator ( ). The operator ( ) did not notice the pipe layer ( ) and started moving the wheel loader towards the second asphalt pile (Asphalt 2 on the Sketch).
- 6.6 The pipe layer ( ) walked back towards the second asphalt pile (Asphalt 2 on the Sketch). When the wheel loader was near the second asphalt pile, the operator ( ) noticed the pipe layer ( ). The pipe layer ( ) signaled the wheel loader operator ( ) to bring the wheel loader towards him.
- 6.7 The pipe layer ( ) walked into the area where the tracked loader was operating. The wheel loader operator ( ) moved his machine close to the pipe layer ( ) and stopped it. The pipe layer ( ) was standing near the access ladder of the wheel loader.
- 6.8 The tracked loader operator ( ), backed his tracked loader up and struck the access ladder area of the wheel loader. The pipe layer ( ) was crushed between the two machines. The tracked loader operator ( ) immediately moved his machine forward and the pipe layer ( ) fell to the ground.

- 6.9 The foreman [redacted] who observed the incident, called the Emergency Medical Services (EMS). EMS responded to the site and attended the injured pipe layer [redacted]. The injured pipe layer [redacted] was pronounced dead at the scene.

## SECTION 7.0 ANALYSIS

### 7.1 Direct Cause

- 7.1.1 The pipe layer [redacted] was crushed between the tracked loader and the wheel loader when the tracked loader operator ([redacted]) backed up his machine.

### 7.2 Contributing Factors

- 7.2.1 The tracked loader operator ([redacted]) did not see the pipe layer ([redacted]) and/or the wheel loader behind him.
- 7.2.2 The pipe layer ([redacted]) moved into an area where the tracked loader was operating without signalling the operator ([redacted]).
- 7.2.3 The wheel loader operator ([redacted]) stopped his machine in the work area of the tracked loader without communicating with the tracked loader operator ([redacted]).

## SECTION 8.0 FOLLOW-UP/ ACTION TAKEN

### 8.1 Employment and Immigration, Occupational Health and Safety

- 8.1.1 On June 13, 2009, Occupational Health and Safety (OHS) received an incident notification. Occupational Health and Safety Officers responded to the scene immediately and commenced an incident investigation.
- 8.1.2 OHS issued an order requiring the employer to conduct an incident investigation and prepare a report.
- 8.1.3 OHS issued a stop work order for loader operations at the site until preventive measures were in place.
- 8.1.4 OHS issued an order requiring the employer to review the hazard assessment for the loader operations at the site.
- 8.1.5 OHS issued an order requiring the employer to not permit a worker to remain within range of the moving loader.

**8.2 Industry**

- 8.2.1 On June 13, 2009 following the incident, Volker Stevin Contracting Ltd. voluntarily stopped work at the site.
- 8.2.2 The employer conducted an incident investigation and submitted a report to OHS.
- 8.2.3 The employer reviewed the hazard assessment for the site.
- 8.2.4 The employer introduced hand held two way radio devices for communication between loader operators and supervisors.
- 8.2.5 The employer complied with all orders issued by OHS.

**SECTION 9.0      SIGNATURES**

\_\_\_\_\_  
Shantha Nandana, Lead Investigator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Gurdip Sanghera, Reviewer

\_\_\_\_\_  
Date

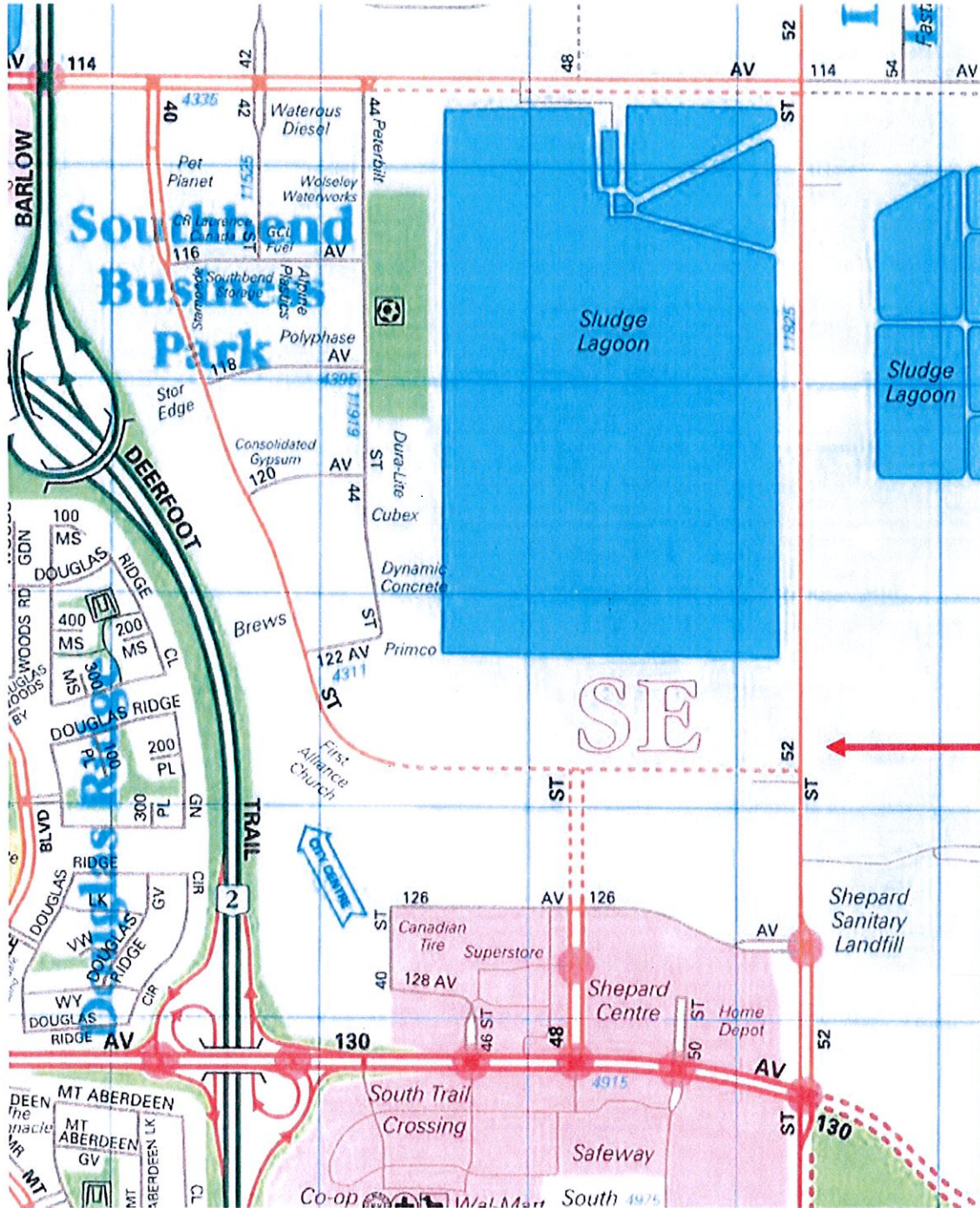
\_\_\_\_\_  
Karen MacDonald, Regional Senior Manager

\_\_\_\_\_  
Date

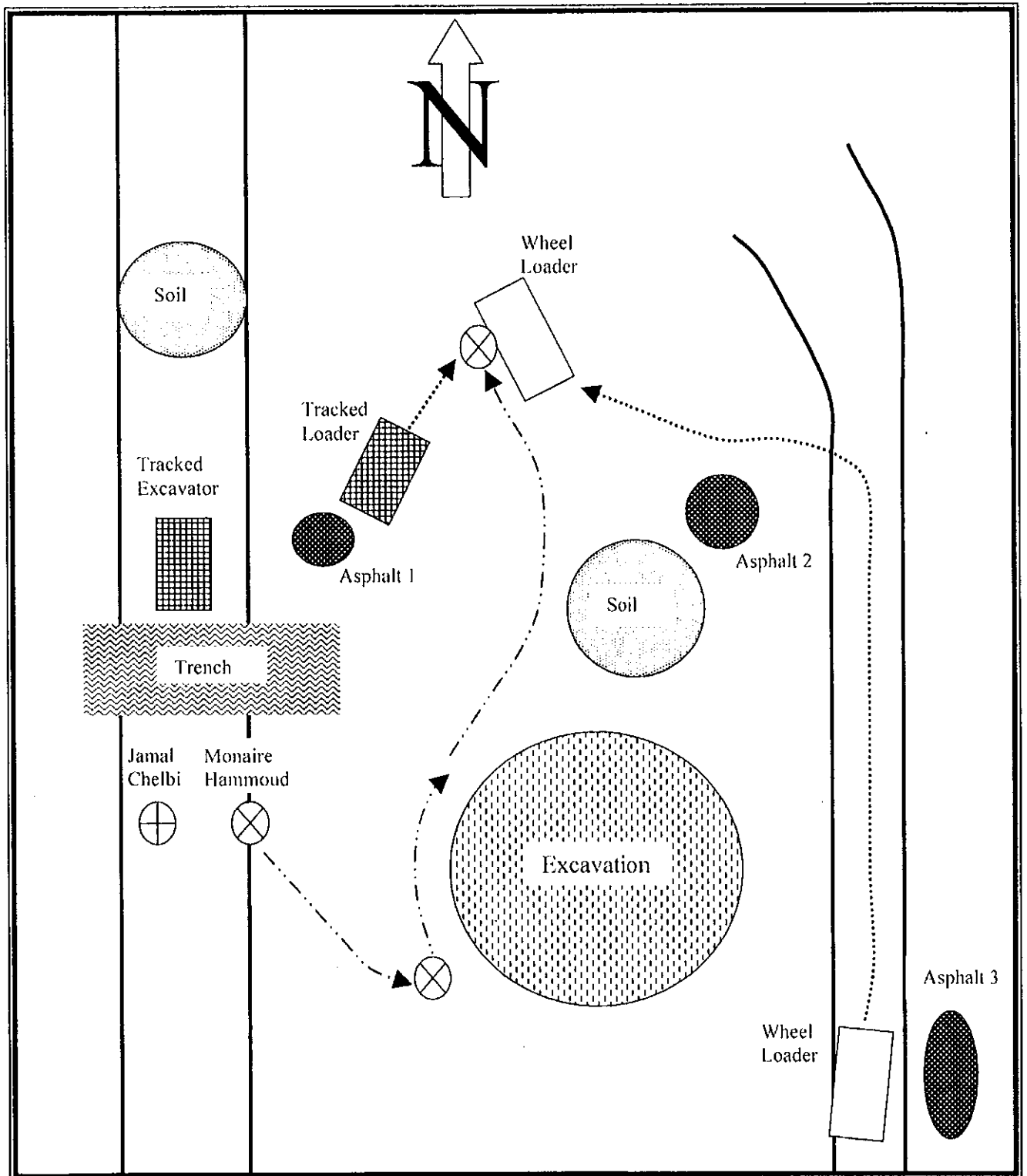
**SECTION 10.0      ATTACHMENTS:**

Attachment A	Map
Attachment B	Sketch
Attachment C	Photographs





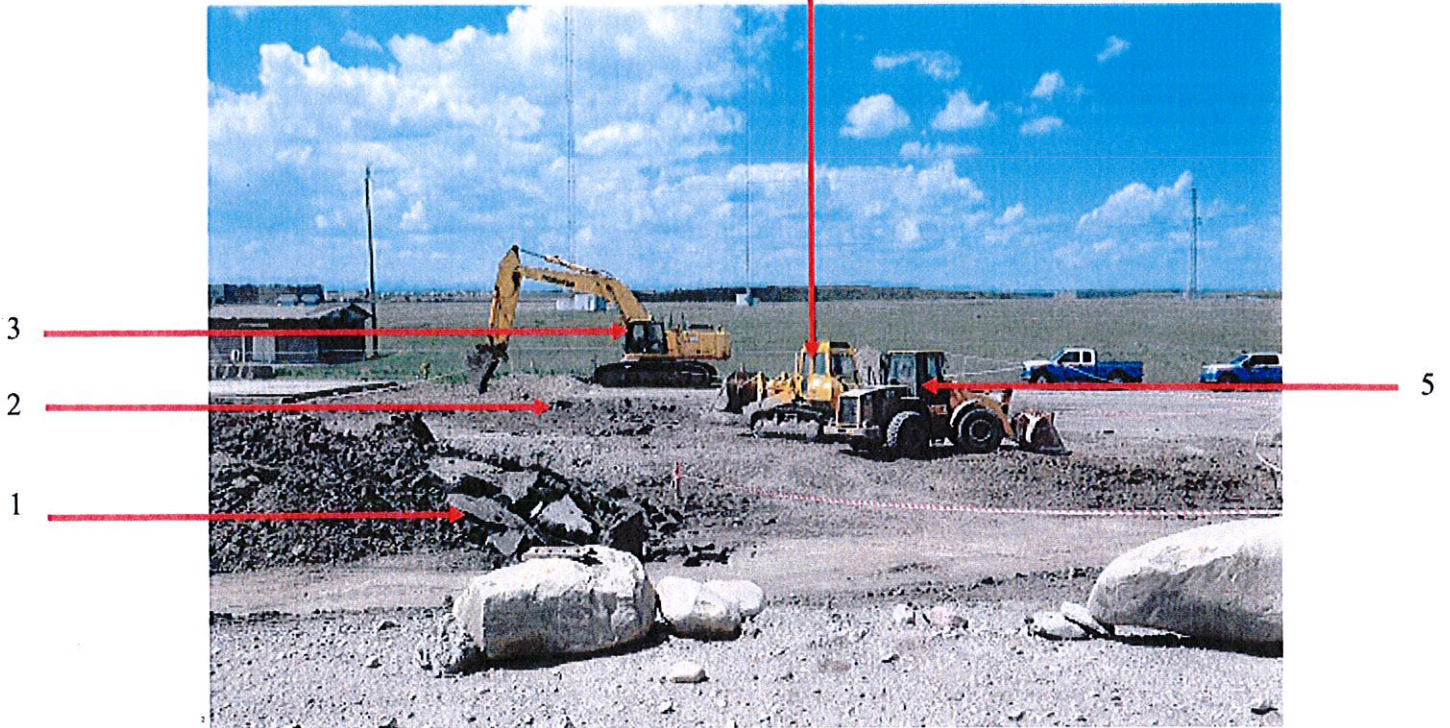
Arrow shows the location of the incident.



Sketch of the site - not to scale



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Photograph 1: Shows view of the site of incident.

- 1 Shows asphalt deposited by the tracked loader (Asphalt 2)
- 2 Shows the location where excavator deposited asphalt (Asphalt 1)
- 3 Shows the tracked excavator
- 4 Shows the tracked loader
- 5 Shows the wheel loader



Photograph 2: Shows the view of the site of incident.

- 1 Shows the overhead power lines
- 2 Shows the pile of soil deposited by the tracked excavator
- 3 Shows 52 Street SE, Calgary



2

1



3

Photograph 3: Close up view of the two loaders involved in the incident.

- 1 Shows the wheel loader
- 2 Shows the ripper attached to the back of the tracked loader
- 3 Shows the tracked loader





Photograph 4: Shows the side and ladder area of the wheel loader where the tracked loader backed into it

Arrows shows the dent caused by the collision