

**CONSTRUCTION FOREMAN KILLED
IN MOTOR VEHICLE COLLISION**

Type of Incident: Fatality

Date of Incident: July 21, 2010

TABLE OF CONTENTS

SECTION	TITLE	PAGE NUMBER
1.0	DATE AND TIME OF INCIDENT	3
2.0	NAME & ADDRESS OF PRINCIPAL PARTIES	3
2.1	Owner	3
2.2	Prime Contractor	3
2.3	Contractor(s)	3
2.4	Employer(s)	3
2.5	Other Employer	3
2.6	Worker(s)	3
3.0	DESCRIPTION OF PRINCIPAL PARTIES	4
3.1	Owner	4
3.2	Contractor	4
3.3	Prime Contractor	4
3.4	Employer	4
3.5	Other Employer	5
3.6	Worker(s)	5
4.0	LOCATION OF INCIDENT	5
5.0	EQUIPMENT, MATERIAL AND OBSERVATIONS	5
5.1	Equipment and Material	5
5.2	Observations	6
6.0	NARRATIVE DESCRIPTION OF INCIDENT	7
7.0	ANALYSIS	8
7.1	Direct Cause	8
7.2	Contributing Factors	8
8.0	FOLLOW-UP/ ACTION TAKEN	9
8.1	Occupational Health and Safety	9
8.2	Industry	9
8.3	Additional Measures	9
9.0	SIGNATURES	10
10.0	ATTACHMENTS	10

SECTION 1.0 DATE AND TIME OF INCIDENT

1.1 The incident occurred on July 21, 2010 at approximately 10:50 a.m.

SECTION 2.0 NAME AND ADDRESS OF PRINCIPAL PARTIES

2.1 Owner(s)

2.1.1 Saddle Hills County
P.O. 69
5201-47 Street
Spirit River, Alberta
T0H 3G0

2.2 Prime Contractor

2.2.1 N.P.A. Ltd. operating as Wapiti Gravel Suppliers
Box 608
Grande Prairie, Alberta
T8V 3A8

2.3 Contractor

2.3.1 Genivar Ontario Inc. operating as Genivar
10070-117 Ave
Grande Prairie, Alberta
T8V 7S4

2.4 Employer(s)

2.4.1 Ken Wilson Contracting Ltd.
R.R. # 1
Grande Prairie, Alberta
T8V 2Z8

2.5 Other Employer

2.5.1 754421 Alberta Ltd.
3026 90 Ave.
Grande Prairie, Alberta
T8X 0C4

2.6 Worker(s)

2.6.1 The Foreman ()

2.6.2 The Driver /
Box 102
Goodfare, Alberta
T0H 1T0

SECTION 3.0 DESCRIPTION OF PRINCIPAL PARTIES

- 3.1 Saddle Hills County is a municipal district located in the central peace country of northwestern Alberta (Attachment A, Map 1). The administration office is located in Spirit River, Alberta. Saddle Hills County awarded the engineering and design for the Range Road 115 upgrade to Genivar Ontario Inc. The motion was carried by the Saddle Hills County Council on April 28, 2009 and Genivar Ontario Inc. was then retained, although no formal contract/agreement was established or signed.
- 3.2 Genivar Ontario Inc. is a multi-disciplinary engineering firm with business locations throughout Canada. The head office is located in Montreal, Quebec and a satellite office is located in Grande Prairie, Alberta. On behalf of Saddle Hills County, Genivar Ontario Inc. prepared and designed the contract and specifications for the required Range Road 115 upgrade and placed the work out for tender in March 2010. Genivar Ontario Inc. also included themselves in the contract as the design builder to oversee and manage the work to ensure it was completed in accordance with the required specifications.
- 3.3 N.P.A. Ltd. operating as Wapiti Gravel Suppliers was awarded the contract tendered by Genivar Ontario Inc. The contract was signed on March 18, 2010 between N.P.A. Ltd. operating as Wapiti Gravel Suppliers and Saddle Hills County. The contract specified the prime contractor responsibilities were assigned to N.P.A. Ltd. in accordance with Standard Specifications for Highway Construction whereby N.P.A. Ltd. operating as Wapiti Gravel Suppliers, by virtue of signing the contract with Saddle Hills County, accepted the designation and responsibilities of prime contractor. N.P.A. Ltd. operating as Wapiti Gravel Suppliers placed the earthworks portion of the project out for tender and awarded that portion of the contract to Ken Wilson Contracting Ltd.
- 3.4 Ken Wilson Contracting Ltd. was sub-contracted to N.P.A. Ltd. operating as Wapiti Gravel Suppliers to complete the earth-moving portion of the project while N.P.A. Ltd. operating as Wapiti Gravel Suppliers would complete the asphalt paving. Ken Wilson Contracting Ltd. is a local heavy equipment/construction company. On June 2, 2010 Ken Wilson Contracting Ltd. signed a contract agreement with Wapiti Gravel Suppliers, a Division of N.P.A. Ltd. to provide manpower and equipment to complete the earthworks required for the Saddle Hills County Range Road 115 upgrade project.

- 3.5 754421 Alberta Ltd. is a solely owned and operated equipment operator company. 754421 Alberta Ltd. had contracted to Ken Wilson Contracting Ltd. since 2001. For the duration of the earth moving component of the Range Road 115 upgrade project, 754421 Alberta Ltd. supplied a scraper equipment operator to Ken Wilson Contracting Ltd.
- 3.6 The Foreman () had been sporadically employed with Ken Wilson Contracting Ltd. for several years. For the Range Road 115 upgrade, the Foreman () was initially hired as an equipment operator. On July 15, 2010, Ken Wilson Contracting Ltd. promoted the equipment operator to the foreman position with the understanding that the Foreman (), who did not have a valid driver's licence, was to provide a means of transportation and a driver to be able to get around the job site. The Foreman () made an unofficial arrangement with a worker who had been formally employed by Ken Wilson Contracting Ltd. The former worker () agreed to drive the Foreman () to and from work and around the Range Road 115 construction work site.

SECTION 4.0 LOCATION OF INCIDENT

- 4.1 The incident took place in the construction zone, approximately 2.5 km north of Highway 49 on Range Road 115 (See Attachment A – Map).

SECTION 5.0 EQUIPMENT, MATERIAL AND OBSERVATIONS

5.1 Equipment and Material

5.1.1 Wheel Tractor-Scraper (Attachment C, Photograph 1)

5.1.1.1 Make: Caterpillar

Model: 627 E

Year: 1989

Product Identifier Number: 6EB00656

Unit Number: 04

Hour meter: 12735 hrs

Last Service: 12672 hrs

The scraper was owned by Ken Wilson Contracting Ltd. and operated by an Equipment Operator () employed with 754421 Alberta Ltd. Wheel tractor-scrapers are used for moving earth. The rear of the scraper is called a hopper or bowl. This hopper can be raised or lowered hydraulically. When in the lower position, the front edge of the bowl cuts into the soil or clay and fills the hopper as the scraper is moved forward. This wheel tractor-scraper was not manufactured with

traffic signal lights. At the time of the incident the scraper bowl was empty and the Equipment Operator () was driving to a borrow pit to get another load of clay needed for the road construction project. The scraper was equipped with a two-way radio.

5.1.2 Pick-up Truck

5.1.2.1 Make: Ford

Model: F150

Year: 1997

Color: Maroon

Vehicle Identification Number: 1FTDX1861VKA44354

License Plate: ZWZ 986

5.1.2.2 The Ford F150 pickup truck was owned by the Foreman (). The vehicle was registered and insured by the Driver () on June 29, 2010. As a condition of employment, Ken Wilson Contracting Ltd. stipulated that the Foreman must have a means of transportation at the work site and have a person with a valid drivers license to drive it. The Foreman () made an informal arrangement with the Driver () to use the Foreman's () pickup truck to transport him around the road construction work site.

5.1.3 The Range Road 115 Upgrade

5.1.3 Range Road 115 is situated in Saddle Hills County (Attachment A, Map). The project involved upgrading the existing 12.94 km of road and associated structures (bridges and culverts). The road is a public road owned and maintained by Saddle Hills County.

5.2 Observations

5.2.1 From June 23–July 14, 2010 Ken Wilson Contracting Ltd. had assigned the supervision of this project to a different Foreman (). This Foreman () left Ken Wilson Contracting Ltd. to seek other employment. On July 15, 2010 Ken Wilson Contracting Ltd. promoted the former Equipment Operator () to the position of Foreman with the understanding that he would make his own arrangements for transportation at the work site.

5.2.2 Both the Driver () and the Foreman () were orientated by Ken Wilson Contracting Ltd. on June 2, 2010. The Foreman () was initially hired as an equipment operator while the Driver () was initially hired as a labourer. The Driver () had only 6 working hours recorded with Ken Wilson Contracting Ltd. from July 1- 15, 2010. The Driver stated that he quit working for Ken Wilson Contracting Ltd. on

or before July 14, 2010 and was present at the work site from July 15–21, 2010 to drive the Foreman () around the work site.

- 5.2.3 Daily hazard assessments/tool box meetings were conducted by Ken Wilson Contracting Ltd. The use of two-way radios and communication were identified as items addressed.
- 5.2.4 The weather conditions reported for July 21, 2010 at approximately 11:00 a.m. were sunny and clear.

SECTION 6.0 NARRATIVE DESCRIPTION OF THE INCIDENT

- 6.1 On July 21, 2010 at approximately 10:45 a.m., the Equipment Operator () was driving the scraper south on Range Road 115. The Equipment Operator () had just emptied a load of clay and was returning to the borrow pit to get another load.
- 6.2 Approximately 1 km north of the borrow pit access, the Equipment Operator () drove past two vehicles that were parked side by side on Range Road 115. The northbound pickup truck belonged to Genivar Ontario Inc. and was driven by the Project Manager () and the southbound pickup truck belonged to the Foreman () and was driven by the Driver ().
- 6.3 The Project Manager () and the Foreman () had a brief discussion while they were both sitting in their parked pickup trucks. The Foreman () mentioned that clay material was needed for a culvert installation. They observed the Equipment Operator () drive by with the scraper heading south on Range Road 115. The Project Manager () said the Foreman () mentioned that the Equipment Operator was going to get another load of clay material from borrow pit # 2. Approximately 10 seconds after the scraper went by, the Driver () and the Foreman () continued travelling south on Range Road 115 and the Project Manager () proceeded north (Attachment B, Diagram 1).
- 6.4 As the Equipment Operator () approached the access to the borrow pit he started to slow down to make the left hand turn into the borrow site. Just before the Equipment Operator () was about to make the left hand turn, he checked over his right shoulder and did not see any vehicles behind him (Attachment C, Photograph 2).
- 6.5 As the Equipment Operator () was in the process of making the left hand turn into the borrow site, the Driver (), in the Ford F150

pickup, attempted to pass the scraper. As the Driver () was passing the scraper, the Equipment Operator () turned the scraper left, towards the borrow site access road and struck the Foreman's () pickup.

- 6.6 The Foreman's () pickup was crushed under the front left side of the scraper and the Foreman () was trapped inside the pickup on the passenger side. The Equipment Operator () backed the scraper off the pickup truck and radioed for help (Attachment C, Photograph 3).
- 6.7 Emergency Services arrived at the scene of the incident and extracted the Foreman () from the pickup. The Driver () was not seriously injured and refused to seek medical treatment. The Foreman () succumbed to his injuries later that day in hospital.

SECTION 7.0 ANALYSIS

7.1 Direct Cause

- 7.1.1 The Foreman () was fatally injured as a passenger in a pickup when the Driver () attempted to pass a scraper that was in the process of making a left hand turn and collided with it.

7.2 Contributing Factors

- 7.2.1 Neither the Driver () or the Foreman () used the two-way radio to inform the Equipment Operator (Ingham Harding) their intention to pass the scraper (Attachment C, Photograph 4).
- 7.2.2 Although the Foreman () was aware of the Equipment Operator's () task of obtaining clay material from borrow pit # 2 would require a left hand turn, the Driver () explained that he did not expect the scraper to be turning.
- 7.2.3 Ken Wilson Contracting Ltd. had a traffic control flag person at each end of the construction zone. The traffic control workers would communicate to the equipment operators when members of the public were passing through the construction zone. The same procedure did not apply to workers who were part of the crew and were passing through the construction zone. There were no flag persons positioned at or near the borrow pit access.
- 7.2.4 Ken Wilson Contracting Ltd. did have a procedure with respect to crew truck operation. The procedure did not specify any communication requirements when passing heavy equipment. The Motor Scraper Operating procedure did specify that loaded scrapers have the right-of-way, however the scraper involved in the incident

was not loaded at the time. It also stated that no machine or person shall approach the scraper when it is in motion.

SECTION 8.0 FOLLOW-UP/ ACTION TAKEN

8.1 Alberta Employment and Immigration; Occupational Health and Safety

- 8.1.1 Occupational Health and Safety Investigators conducted an investigation into the circumstances surrounding the incident. An order was written to N.P.A. Ltd. operating as Wapiti Gravel Suppliers to conduct an investigation and prepare a report.
- 8.1.2 A stop work order was issued to Ken Wilson Contracting Ltd. regarding vehicle traffic control and an order respecting vehicle inspection to ensure the scraper involved in the incident was safe for continued operation.
- 8.1.3 Occupational Health and Safety Investigators also requested Saddle Hills County to provide a letter clarifying the role of prime contractor.

8.2 Industry

- 8.2.1 N.P.A. Ltd. operating as Wapiti Gravel Suppliers conducted an investigation and submitted the report that included measures to prevent recurrence.
- 8.2.2 Ken Wilson Contracting Ltd. amended the protocol on the use of radios to include light vehicles and the safety rules of the road were reviewed with all crews. At the request of N.P.A. Ltd. operating as Wapiti Gravel Suppliers, Ken Wilson Contracting Ltd. positioned flag persons where there was heavy equipment crossing, exiting or entering the roadway. The scraper was inspected and repaired as required.
- 8.2.3 Saddle Hills County responded in a letter that identified the contract in place was with N.P.A. Ltd. operating as Wapiti Gravel Suppliers which designated them as prime contractor for the duration of the project. N.P.A. Ltd. operating as Wapiti Gravel Suppliers maintained they had sub-contracted the prime contractor responsibilities to Ken Wilson Contracting Ltd. for the earthworks portion of the project. It was later clarified that only the owner of the work site can relinquish the prime contractor responsibilities and the only contract in place with Saddle Hills County (owner) at the time of the incident was with N.P.A. Ltd. operating as Wapiti Gravel Suppliers.

8.3 Additional Measures

- 8.3.1 There were no additional measures.

SECTION 9.0 SIGNATURES

Adele Tait, Lead Investigator

Date

John Lennon, Investigator

Date

Gerry Wagner, Manager

Date

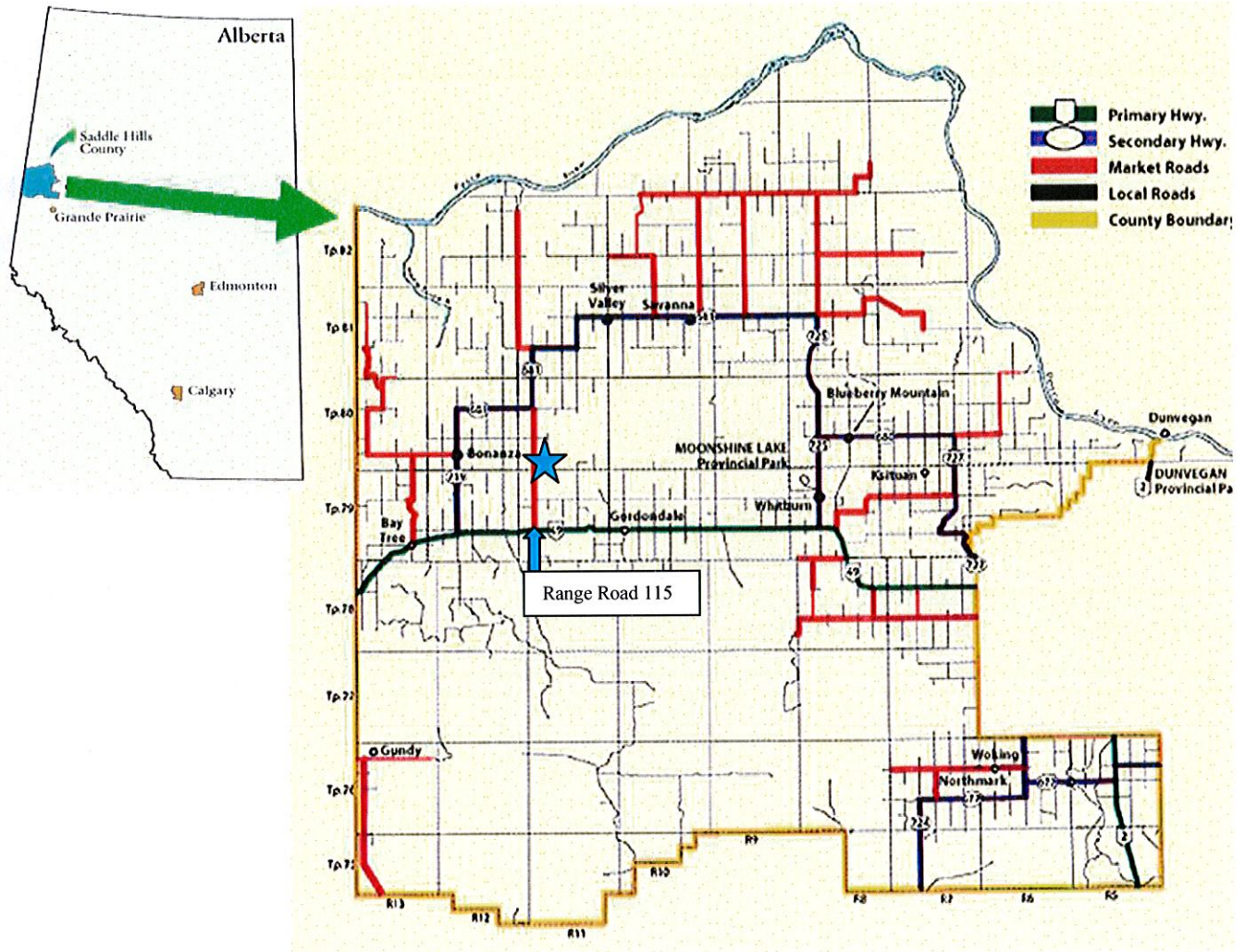
Joanne Garton, Regional Director, Central

Date

SECTION 10.0 ATTACHMENTS:

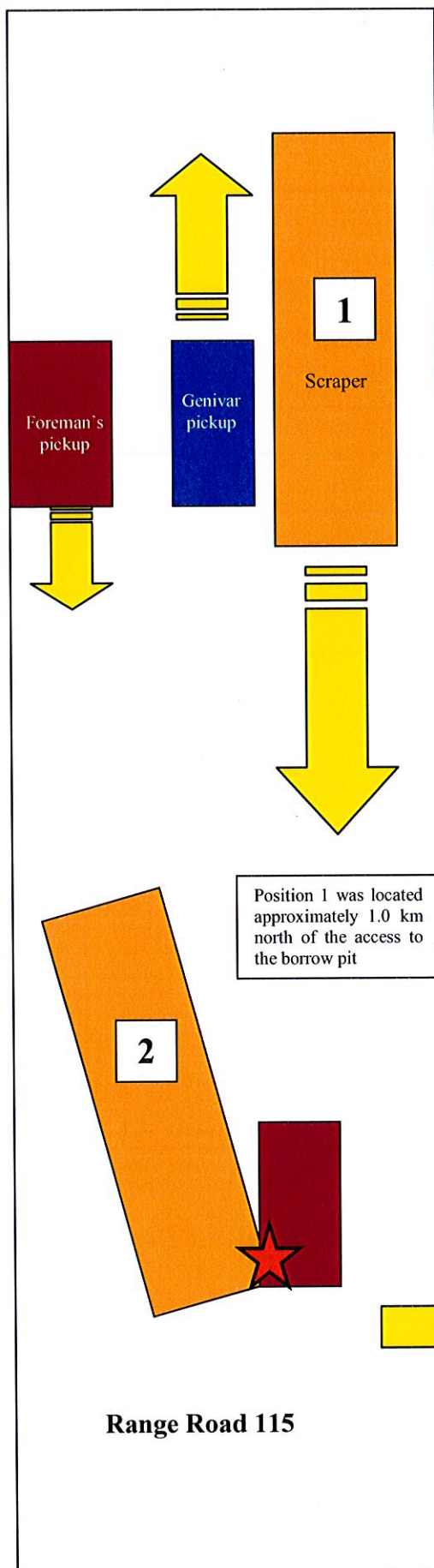
Attachment A	Map
Attachment B	Diagrams or Sketch
Attachment C	Photographs

ATTACHMENT A



Map 1

The Alberta map to the left shows where the Saddle Hills County is located in the province. The county map shows the location of Range Road 115 and the approximate area where the incident took place as shown by the blue star.



North
(Drawing NTS)

Diagram 1

This shows the approximate position of the equipment and pickups involved in this incident. The scraper is identified in orange and position 1 shows the scraper traveling south approximately 1.0 km past the two pickups shown in maroon and blue.

As the Equipment Operator () was in the process of turning the scraper left into the borrow pit access (position 2), the maroon pickup owned by the Foreman () and driven by the Driver () tried to pass the scraper (position 2) and collided with it.

The yellow arrows show the direction of travel. The red star shows the area of impact on the passenger side of the maroon pickup where the Foreman () had been sitting.

Access to borrow pit

ATTACHMENT B

ATTACHMENT C



Photograph 1

Shows the Caterpillar wheel tractor-scraper owned by Ken Wilson Contracting Ltd. and operated by 754421 Alberta Ltd.

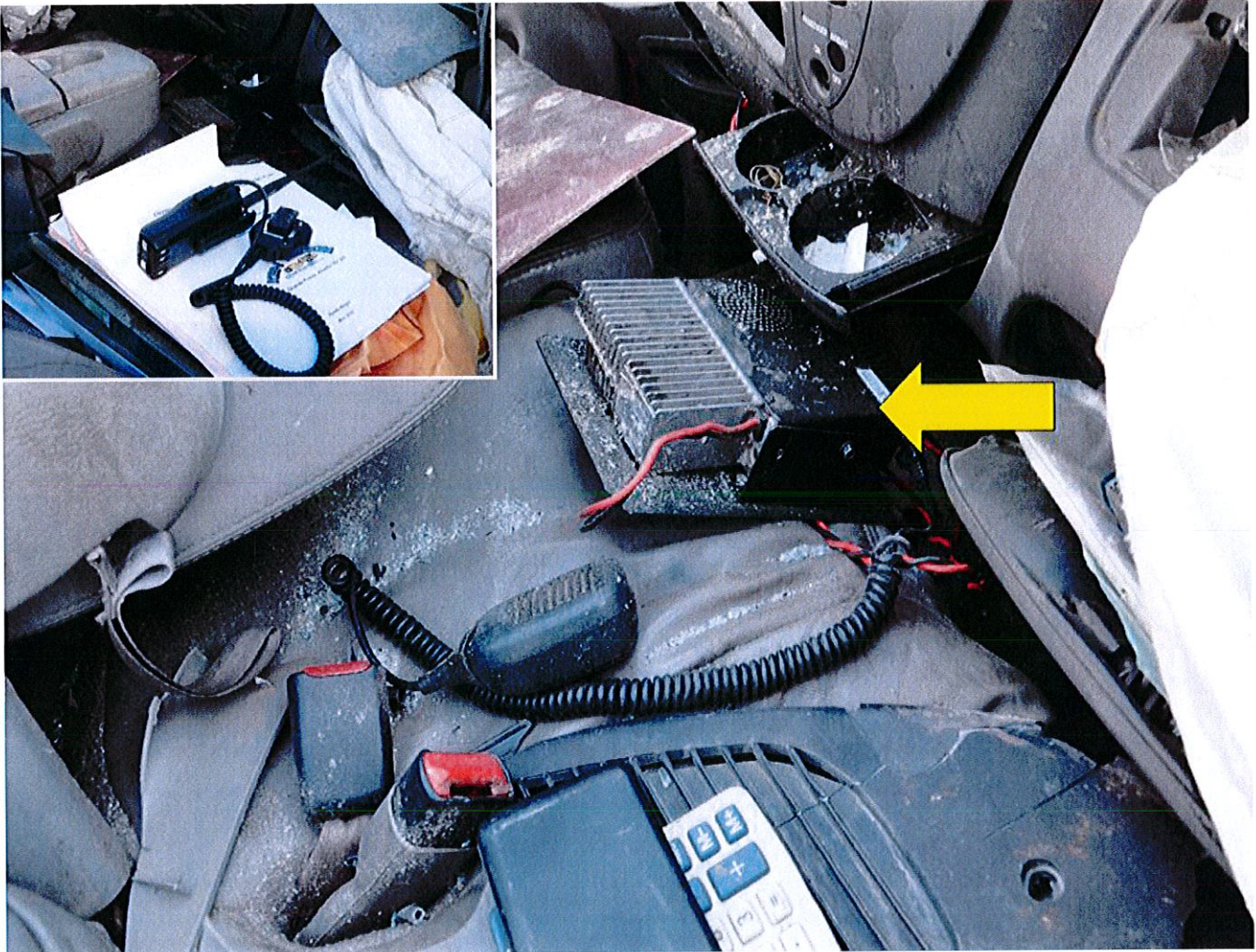


Photograph 2

Shows Range Road 115 looking south. The red arrow shows where the access road to the borrow pit was located and where the Equipment Operator was turning. The insert in the top right hand corner shows the east view from the operator's seat in the scraper looking into the borrow pit area.



Photograph 3
Shows the Foreman's _____ truck after it had collided with the front left side of the scraper.
The area of impact was directly to the passenger side of the pickup truck.



Photograph 4

Shows the two-way mounted radio inside the Foreman's () pickup. The insert in the top left shows a handheld two-way radio that was also found inside the Foreman's pickup.