

OFFICE OF THE MEDICAL EXAMINER 701 W. Jefferson St. Phoenix, AZ 85007

MEDICAL EXAMINER REPORT

DECEDENT: Wade Scott Parker

CASE: 13-04442

DATE OF EXAMINATION: 07/02/2013

TIME: 1100 Hours

PERSONS PRESENT AT EXAMINATION: Yavapai Sheriff's Office: Lt. T. Boelts

Arizona State Forestry Div.: State Forester J. Payne

PATHOLOGIC DIAGNOSES

I. Fire Related Injuries.

- a. Extensive Charring of Anterior Body Surface Areas
- b. Frontal Parietal Thermal Epidural Hematoma
- c. Soot within Airways
- d. Carboxyhemoglobin, 11% Saturation
- e. Benzene, Toluene, Xylene in Brain

II. Early Decomposition.

CAUSE OF DEATH: Fire Related Injuries

MANNER: Accident

Date Signed

LESLEY E. WALLIS, DO MEDICAL EXAMINER

REPORTED CIRCUMSTANCES OF DEATH

On July 1, 2013, Yavapai County officials requested assistance from the Maricopa County Office of the Medical Examiner with the medicolegal death investigations of 19 firefighters who died in the Yarnell Hill wildfire on June 30, 2013. Under the Maricopa County Manager's authority and direction, the Maricopa County Office of the Medical Examiner examined the firefighters' remains for the purpose of forensic identification and postmortem evaluation. The Maricopa County Office of the Medical Examiner also agreed to provide consultative services to investigating authorities and the Yavapai County Medical Examiner. The Yavapai County Medical Examiner agreed it will certify the firefighters' death certificates. The following Maricopa County Office of the Medical Examiner case numbers were designated for this incident: 13-04425, 13-04426, 13-04427, 13-04428, 13-04429, 13-04430, 13-04431, 13-04432, 13-04431, 13-04431, 13-04441, 13-04442, and 13-04443.

EXTERNAL EXAMINATION

The body is received in a zippered body bag sealed with tab number 026430.

CLOTHING AND PERSONAL EFFECTS

The decedent is received partially clad in charred boots and socks. A portion of braided bracelet along with fabric from an overlying shirt and glove are overlying the right hand and wrist area. The left hand is partially covered by a charred glove which is absent the thumb and posterior aspects of the first and second fingers. There are no other grossly identifiable portions of clothing present.

EVIDENCE OF INJURY

The entire body exhibits thermal injuries characterized by charring of the majority of the soft tissues overlying the anterior aspects of the torso and bilateral extremities, with focal areas of skin splitting within the right axilla, overlying the superior aspect of the left shoulder extending to the left clavicle and anterior aspect of the left chest and left axilla. There are also large areas of skin splitting overlying the lateral aspect of the right thigh and medial aspect of the left groin, and extending into the entire length of the left thigh. There is exposure of underlying musculature with charring of the underlying soft tissues. The posterior aspect of the body exhibits a moderate amount of soot deposition with extensive skin slippage consistent with decompositional changes along with possible second and third degree burns.

Internal examination reveals cherry pink discoloration to the soft tissues overlying the chest as well as soot deposition within the oropharynx, trachea, and bilateral bronchi. However, the extent of the soot deposition cannot be accurately ascertained as there is a moderate amount of decompositional fluid present within the bilateral bronchi and trachea. There is also evidence of a thermal epidural hematoma overlying the bilateral frontal and parietal lobes. There is no evidence of traumatic skull fracture or evidence of hemorrhage to the overlying scalp.

WADE SCOTT PARKER

13-04442

GENERAL EXTERNAL EXAMINATION

The body is that of a 70-1/2 inch, 160 pound, adult male with extensive thermal injuries. The scalp is covered with a small patch of possibly brown hair overlying the mid vertex with a length of approximately 1 inch. The remaining scalp exhibits extensive charring artifact. The soft tissues of the face are extremely taut with marked soot deposition. The eyes have indeterminate coloration secondary to decompositional and thermal artifact. The nasal bridge is intact, and there is a moderate amount of dark red gelatinous to spongy material consistent with pulmonary edema exuding from the nose and mouth. The bilateral external ears are markedly shrunken due to thermal artifact. The auditory canals however are grossly unremarkable. The oral mucosa has a moderate amount of coagulated pulmonary edema with focal soot, and no other acute lesions identified. The maxilla and mandible have native dentition in good repair. The neck also exhibit thermal artifact characterized by dark black discoloration of the skin along with retraction and thickening of the soft tissues. The chest has the above described skin split overlying the superior left shoulder, left clavicle, and anterior left aspect with the noted surrounding thermal injuries. The abdomen is distended and taut, secondary to thermal and decompositional changes. There are no grossly identifiable scars or tattoos present. The genitalia are those of an adult circumcised male: however, due to the thermal injuries, descended testes are not readily identified. The back has the above noted traumatic artifact; however, upon cleaning off the skin slippage and overlying soot, there is a tattoo of a large cross extending over the thoracic and lumbar regions. This cross contains the face of a lion. The posterior aspect of the right hip exhibits a somewhat triangular area of sparing of skin and soft tissue to both decompositional and thermal injuries. The extremities are paired, with the lower extremities exhibiting pugilistic contracture. All extremities have the above noted skin slippage and the posterior aspects of the hands have charring with exposure of the underlying metacarpal joints, with focal thermal injury to the bone.

INTERNAL EXAMINATION

The body is opened by a standard Y-shaped thoracoabdominal incision. All viscera occupy their appropriate anatomic relationships. Subcutaneous adipose tissue ranges less than 1.0 cm in thickness over the abdominal wall, with minimal to no grossly identifiable adipose tissue. Serous surfaces are smooth and glistening throughout. The bilateral pleural cavities contain an estimated 200 cc of dark red decompositional fluid.

CARDIOVASCULAR SYSTEM

The 300-gram heart occupies its usual mediastinal site. The external configuration is unremarkable. The epicardial surfaces are smooth and glistening. All major vessels arise in their appropriate anatomic relationships. The coronary arteries arise normally and are distributed in a right dominant distribution with no significant atherosclerotic narrowing of the major epicardial vessels. The myocardium is firm and red-brown without areas of softening, hemorrhage or gross scarring. No abnormal communications exist between the cardiac chambers. The cardiac valves have thin,

pliable leaflets. The valve circumferences are appropriate to the caliber of the cardiac chambers. The valve cusps and surfaces are free of fusion or vegetations.

The aorta is of normal caliber with all major arterial branches arising in their appropriate anatomic relationship. Elasticity is normal. The intimal surfaces have a mild crimson red discoloration secondary to early decomposition, with no atherosclerotic changes present. No systemic venous abnormalities or thrombi are present.

RESPIRATORY SYSTEM

The bilateral pleural cavities contain an estimated 200 cc of dark red to purple decompositional fluid. The 800-gram left and 775-gram right lung have dark purple gelatinous cut surfaces, which are grossly free of consolidations or scarring. The trachea and bilateral bronchi contain a black granular material. However, the extent of the material cannot be accurately ascertained secondary to the amount of decompositional fluid along with pulmonary edema present within the airways.

DIGESTIVE/HEPATOBILIARY SYSTEM

The oropharynx is grossly normal and unobstructed. The esophagus is of normal caliber, with a smooth, white mucosal lining. The gastroesophageal junction is well defined. The stomach has intact mucosal surfaces and the lumen contains 100 cc of dark brown liquid with no grossly identifiable food particles. No areas of ulceration, erosion, hemorrhage or scarring are present. The small and large intestines are unremarkable. The appendix is present and not grossly inflamed. The lobular tan pancreas is firm, without areas of fat necrosis, gross hemorrhage or space-occupying lesions. The pancreatic ducts are patent and of normal caliber.

The 1350-gram liver has an intact capsule, covering slightly aerated dark brown parenchyma, consistent with early decomposition and no masses, lesions or other abnormalities are identified. The gallbladder contains viscid bile. The gallbladder mucosa is grossly normal.

GENITOURINARY SYSTEM

The symmetric kidneys weigh 125 grams left and 125 grams right. They are similar. The capsules strip with ease from the markedly congested cortical surfaces. The cortices are sharply delineated from the medullary pyramids. The calyces, pelves and ureters are unremarkable. The renal vessels are patent and of normal caliber.

The urinary bladder contains approximately 20 cc of light pink to yellow urine. The mucosal surfaces are flat and pink-tan. The trigone is patent. The prostate and seminal vesicles are not remarkable.

HEMATOPOIETIC SYSTEM

The 150-gram spleen occupies its usual anatomic site, with an intact, smooth and glistening capsule covering dark purple, moderately firm parenchyma. Regional lymph nodes have their usual distribution and appearance.

ENDOCRINE SYSTEM

The thyroid and adrenal glands are grossly not remarkable.

NECK

The cervical spine is structurally intact. The hyoid bone and thyroid cartilage are intact. There are no hemorrhages in the strap muscles or soft tissues of the neck. The upper airway is patent.

MUSCULOSKELETAL SYSTEM

The bony framework, supporting musculature and soft tissues are unremarkable, other than the injuries as described above.

NERVOUS SYSTEM

The scalp has the above described thermal injuries with no gross trauma within the subscalpular or subgaleal areas. The calvarium and skull base are intact. There is however a thermal epidural hemorrhage overlying the frontal and bilateral parietal lobes. The dura is intact with no subdural or epidural hemorrhage present. The 1450-gram brain otherwise has symmetric cerebral and cerebellar hemispheres covered by congested, clear, thin leptomeninges. The brain parenchyma is somewhat firm secondary to thermal artifact. The cerebral cortex is tan, uniform, and free of contusion foci or hemorrhage. The cerebral white matter is uniform throughout. The caudate nuclei, thalami, and basal ganglia are tan, uniform, and symmetric. The cerebellum, pons, midbrain, and medulla oblongata are free of internal or external abnormalities. The substantia nigra is normally pigmented. The cranial nerves and mammillary bodies are paired and unremarkable. The vasculature at the base of the brain is free of atherosclerosis, aneurysm, or thrombi. The cervical spinal cord is firm, symmetric, and unremarkable. The atlanto-occipital articulation is intact.

TOXICOLOGY SPECIMENS

Samples of iliac blood, vitreous humor, bile, gastric contents, urine, brain, spleen, liver, kidney, and psoas muscle are collected and submitted for toxicologic analysis.

EVIDENCE

All of the above noted clothing are collected, inventoried, and held as evidence.

13-04442

FINAL SUMMARY

Based on the autopsy findings and investigative history as available to me, it is my opinion that Wade Scott Parker, a 22-year-old Caucasian male, died as a result of Fire Related Injuries.

The manner of death is Accident.

LEW/svp D 7/11/13 T 7/12/13 Lew 10/8/13

The Maricopa County Medical Examiner's Office is required by statute (A.R.S. § 11-594(A) (2) and (4)) to certify the cause and manner of death following completion of the death investigation of each case over which it assumes jurisdiction, and to promptly execute a death certificate, on a form provided by the state registrar of vital statistics, indicating the cause and manner of death. The form provided by the state registrar of vital statistics includes five manners of death: homicide, suicide, accident, natural, and undetermined. The determination of manner of death is a forensic determination by the pathologist predicated upon the totality of all then-known forensic evidence and other circumstances surrounding the cause of death; it is not a legal determination of criminal or civil responsibility of any person(s) for the death.

MARICOPA COUNTY OFFICE OF THE MEDICAL EXAMINER REPORT OF TOXICOLOGICAL EXAMINATION

Case Number:

13-04442

Decedent:

WADE SCOTT PARKER

Date Submitted: Report Date:

07/02/2013 07/26/2013

Specimens Collected: VITREOUS, KNOWN PULLED HEAD HAIR, SWAB OF NASAL

CAVITY, BILE, BLOT/FILTER PAPER, ILIAC BLOOD, GASTRIC, LEFT LUNG, LIVER, LEFT KIDNEY, SPLEEN, PSOAS MUSCLE.

URINE, EPIDURAL BLOOD, BRAIN

Medical Examiner: LESLEY E. WALLIS. DO

RESULTS*:

Vitreous:

None detected for ethanol, methanol, isopropanol and acetone

Iliac Blood:

Positive for

Ethyl alcohol 0.02 g%

Carboxyhemoglobin (11% saturation)

None detected for methanol, isopropanol, acetone, amphetamine, methamphetamine, phencyclidine, cocaine, benzoylecgonine, methadone, morphine, codeine, benzodiazepines, barbiturates, antihistamines, phenothiazines, tricyclic antidepressants, fentanyl,

oxycodone, and acid neutral drugs

Brain:

Positive by GC/MS for

Benzene Toluene **Xylene**

Lung:

Positive by GC/MS for

Benzene

Urine:

None detected for amphetamine, methamphetamine,

phencyclidine, cocaine, methadone, codeine, antihistamines,

phenothiazines, and tricyclic antidepressants

"If results are not listed for any specimen(s), that/those specimen(s) is/are deemed to be on "HOLD"

Norman A. Wade **Laboratory Director**

Jurisdictional Agency: YAVAPAI SO By: svp, Tox.1/2000, DAWN

J. Walle Bo