SAN LUIS OBISPO COUNTY SHERIFF
1585 KANSAS AVE
SAN LUIS OBISPO, CA 93405

SUPPLEMENTAL INCIDENT REPORT

CASE NUMBER	SUPPLEMENT NUMBER
960610965	782
CASE TYPE	CAD EVENT NUMBER
HOMICIDE	
REPORTING OFFICER	REPORT DATE
SLDA6061 - CAMP, JAMES	03/14/2022

INCIDENT

LOCATION				DATE	TIME
, CA				03/14/2022	11:12
PREMISE NAME					
C ARRINGTON INT 03 07 2022					
STATION	BEAT	RESP AREA		JURISDICTION	
ST24				SLSO	

ADDITIONAL INFORMATION

☐ INC SUPP 1

INC SUPP 2

INC SUPP 3

INC SUPP 4

STATUS

CASE STATUS	CASE STATUS DATE	DISPOSITION	DISPOSITION DATE	APPROVAL	APPROVAL DATE
FIL	11/08/2021	AA	04/08/2021	SLSO1138 - MENGHRAJANI, D	03/14/2022

03/22/2022
150:055768

INCIDENT REPORT	SAN LUIS OBISPO COUNTY SHERIFF	CASE NUMBER	STATUS
		960610965	782

PROPERTY

ENTRY NO	INVOLVEMENT	TYPE	MAKE	MODEL				
1115	E	53						
	SERIAL NUMBER		QUANTITY	CALIBER	COLOR	TAG	RECOVERED	EVIDENCE
								N
	DESCRIPTION						CUSTODY STATUS	
	DISC AND HARD COPIES OF DOCUMENTS FROM C. ARRINGTON (FROM INT ON 03 07 2022)						SUBMITTED	
	COMMENT							

NARRATIVE

REPORT DATE: 3/10/2022

REPORT PURPOSE: Document interview with Cindy Arrington on 3/7/2022

On 3/7/2022 at about 1001 hours, DDA C. Peuvrelle and I met with Cindy Arrington for purposes of a pretrial interview. We initially spoke generally about the case status and the April 2021 dig. At one point, Arrington indicated that there are 206 bones in the human body, and as such indicated that she did not see how all of the bones (of Kristin Smart) could have been collected. She said that in her opinion, Kristin Smart was put in something " semi permeable" and that the wrapping was not watertight. As a result, some fluids would have leaked out and that was where the staining came from. Further, she stated in that situation, the bones would remain contained. She said that there was deformation/disruption of the soil, and it was not uniform.

Regarding the staining, it was not an oval pattern and there was a discontinuous staining pattern. She said that the deformation of the soil was caused by multiple digs. Arrington stated that the burial was " amateur" .

We discussed general testimony from the preliminary hearing as well as expected trial testimony. Arrington indicated that she would be sending us some graphics that could be used and referred to at trial. These images/files depict issues surrounding stratigraphy and may be used to assist in gaining an understanding of the topics Arrington is expected to testify to.

DDA Peuvrelle showed Arrington preliminary hearing exhibit #179. Arrington indicted that her opinion was that the bottom portion depicted in the image is decomposition - the " bathtub" staining is decomposition. She added that decomposition fluid leaked out and was dug up which is why the presentation is " messy" . She indicated that soil and stratigraphy will tell a story as to what happened and added that there was no way a bone would not have been left behind. Arrington went on to say that because of this, Kristin Smart would' ve been wrapped up, fluids leaked but the bones remained in the wrapping material. She said that Kristin Smart had to have been wrapped in something.

Regarding the initiation of decomposition, there are variables such as weather, climate, soil, and the environment. She said there are a lot of different variables, and you can estimate, but it is localized.

Regarding the second dig (in April) and looking at the first and second dig, the April dig confirmed what was seen in March.
We discussed how there was no soil soap seen, which is different from bathtub stain decomposition.

We discussed the general anticipated trial testimony direction.

Arrington eventually provided a series of documents to the District Attorney' s Office for use in this case. I attached photocopies of the documents to this supplemental report for reference. I also booked hard copies of the documents along with digital copies into property at the Sheriff' s Detective Division (See RMS # 1115).

CLOSING STATEMENT:

Case status cleared by Adult Arrest.

DA Investigator JT Camp #6061

JTC/sw 03/14/2022

Supp#782

What is the process of decomposition?

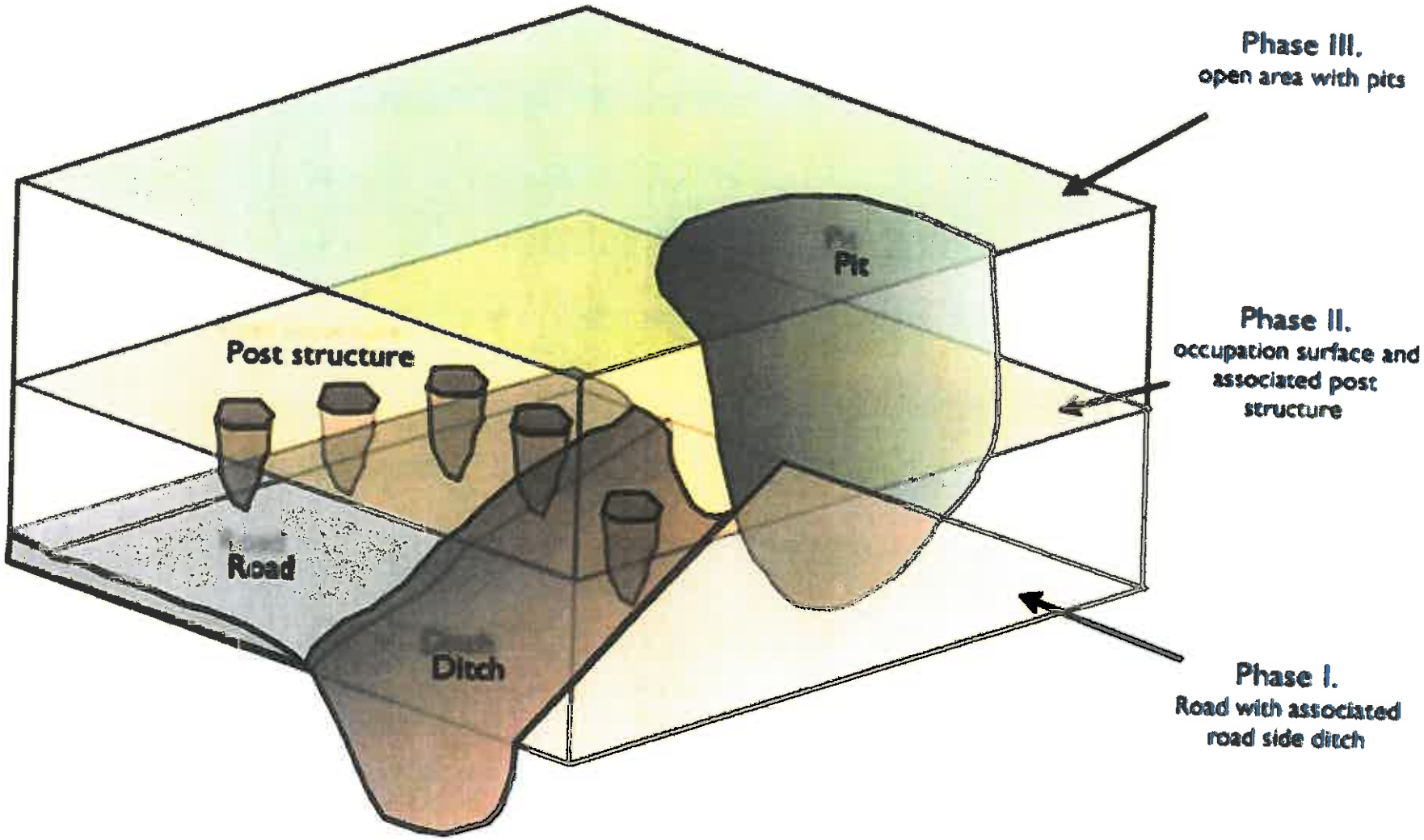
A corpse generally progresses through five stages of decomposition—fresh (1-2 days), bloat (2-6 days), active decay (5-11 days), advanced decay (10-24 days) and skeletonization (24days +). Again, this is highly subjective to environment, weather, soil type, and body disposal.

Specific Factors Affecting the Decomposition Process

- Temperature.
- Oxygen availability.
- Embalming.
- Cause of death.
- Burial conditions.
- Access by scavengers.
- Trauma.
- Humidity.

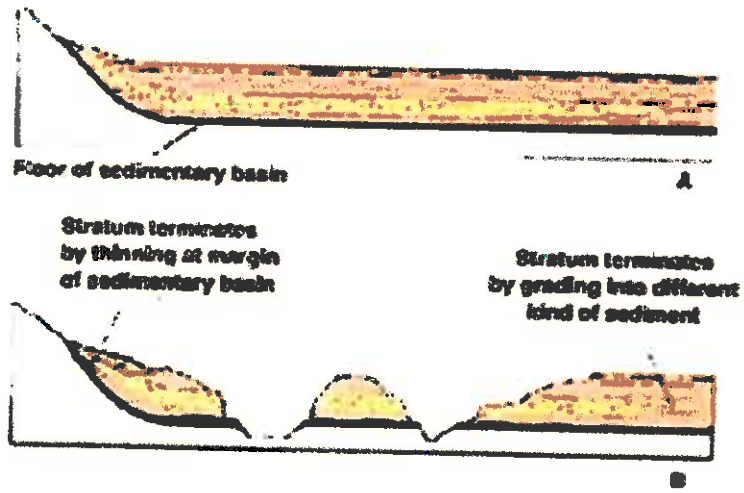
A number of factors affect the rate of decomposition of organic matter: **climate, substrate quality, and soil type**.

Sequence with 3 phases



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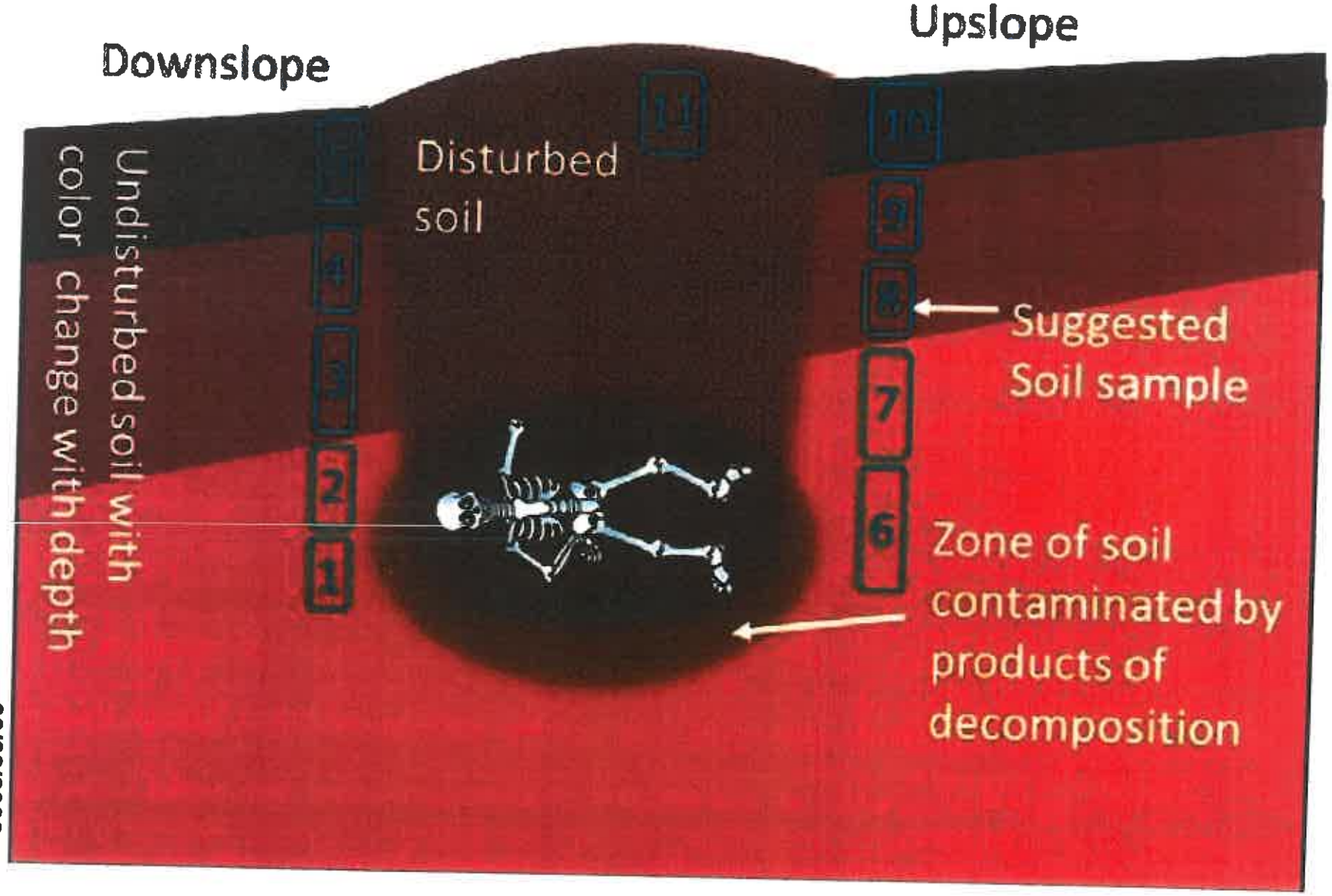
Principle of lateral continuity



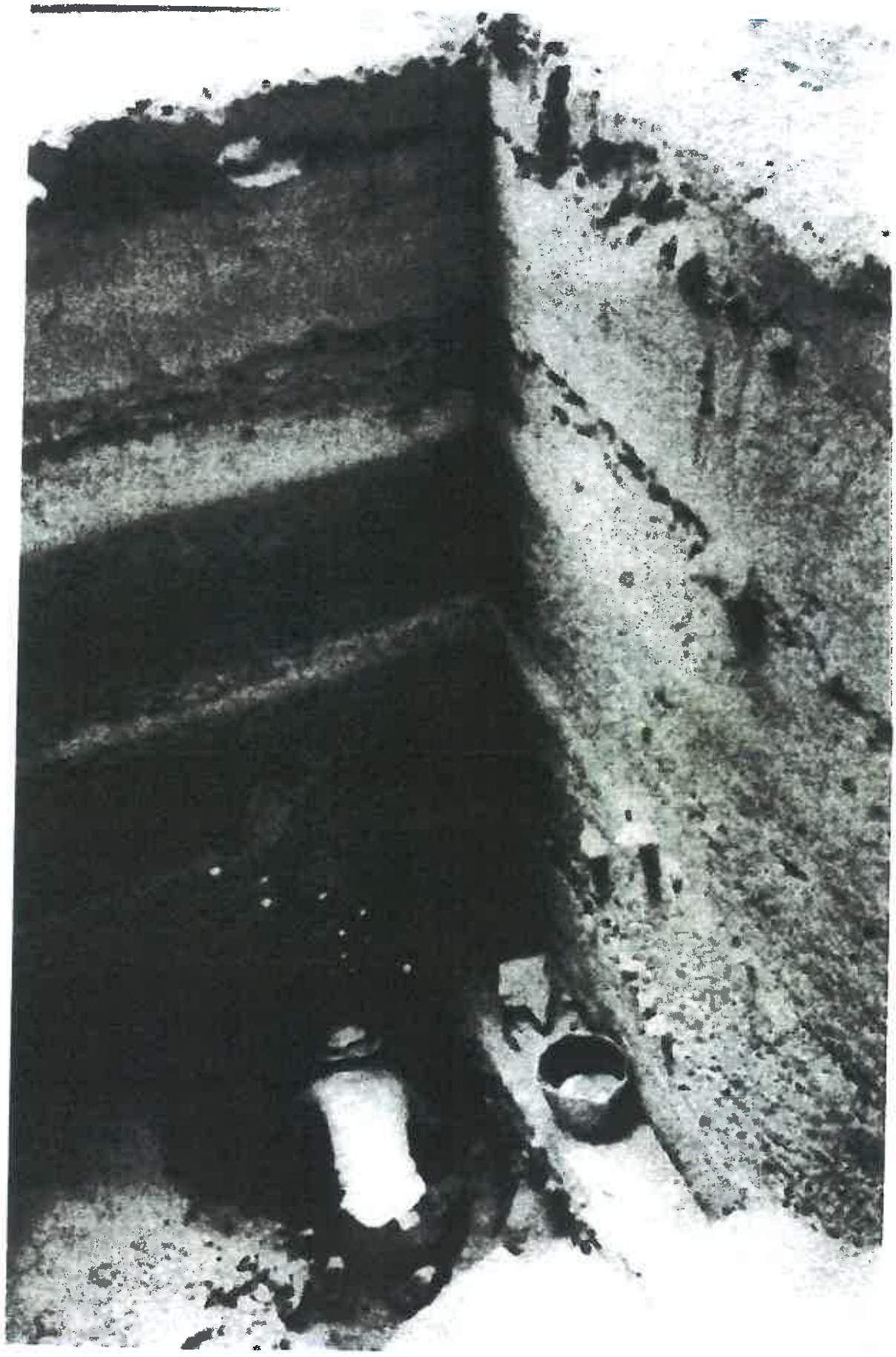
- Strata are deposited in a basin and thus will be continuous from end to end
- Any breaks are due to erosion or deformation *after* deposition

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Cross-sectional view of clandestine grave



03/22/2022
150:055774



03/22/2022
150:055775

03/22/2022
150:055776

EXHIBIT D

Quality Forensics since 1978

March 25, 2021

Senior Deputy Clinton Cole
San Luis Obispo County Sheriff's Office
1585 Kansas Avenue
San Luis Obispo, CA 93401

SERI Case No. 11034.19
Agency Case No. 9606-10965
Victim: Kristin Smart
Suspect: Paul Flores

ANALYTICAL REPORT

On May 9th 2019, nine items of evidence were received at the Serological Research Institute (SERI) from the San Luis Obispo County Sheriff's Office via OnTrac (B10318478284). On May 14th 2019, one item of evidence was received at SERI from the San Luis Obispo County Sheriff's Office via OnTrac (B10318478319). On November 14th 2019, nine items of evidence were received at SERI from Deputy Cole. On December 31st 2020, five items of evidence were received at SERI from Deputy Cole. On January 25th 2021, one item of evidence was received at SERI from Deputy Cole. On December 31st 2020, five items of evidence were received at SERI from Deputy Cole. On March 17th 2021, two items of evidence were received at SERI from Deputy Cole. Body fluid screening, DNA analysis using the Polymerase Chain Reaction (PCR), and comparison were requested.

The results of the testing from the following items will be issued in a subsequent analytical report:

ITEM 1 CLOTH (22)
ITEM 2 HAIR FROM BED (26)
ITEM 3 SLIDE WITH HAIRS (27)
ITEM 4 CORNER MATTRESS (81)
ITEM 5 CORNER MATTRESS CONTROL (82)
ITEM 6 BLOOD – STAN AND DENISE SMART (200)
ITEM 7 SWAB 55 A1 MATTRESS (13)
ITEM 8 SWAB 55 A2 MATTRESS (14)
ITEM 9 BLOOD – PAUL FLORES (7)
ITEM 10 SMART'S PANTIES (51)
ITEM 11 CANVAS MATTRESS PAD (8)
ITEM 12 TRUCK CARPET CUT OUT (600)
ITEM 13 SWAB: UNDER CARPET STAIN (593)
ITEM 14 SWAB: DRIVER'S SIDE CARPET (594)
ITEM 15 SWAB: REAR PASSENGER SEAT (595)
ITEM 16 SWAB: UNDER SEAT NEAR ASSEMBLY (596)
ITEM 17 SWAB: BACKSIDE OF DRIVER SEAT (597)
ITEM 18 SWAB: CONTROL BACKSIDE OF DRIVER SEAT (598)

ITEM 19 SWAB: CONTROL BACKSIDE OF DRIVER SEAT (599)
ITEM 20 SWAB OF ITEM 58 (58A)
ITEM 21 SWAB OF ITEM 58 (58B)
ITEM 22 CONTROL FOR ITEM 58 (58 CONTROL)
ITEM 23 SWAB OF BOX SPRING COVER STAIN (58C)
ITEM 24 SWAB OF CONTROL CORNER OF MATTRESS (55BSC)
ITEM 25 DNA EXTRACTS (758)

ITEM 26 UPPER SOIL SAMPLE UPPER (775)

This item consisted of a plastic tube containing approximately 43 grams of brown sand with some clusters of dark brown colored material. A small cluster of the dark brown colored material (item 26-1) was tested for the presence of human blood. The results are tabulated below.

ITEM 27 DEEPER SOIL SAMPLE (776)

This item consisted of a plastic tube containing approximately 42 grams of brown sand with several different sized clusters of dark brown colored material. Two small quantities of the dark brown colored material was sampled (item 27-1 and item 27-2) and directly tested for the presence of human blood. Under microscopic examination, four additional clusters of the dark brown colored material were sampled (items 27-3 through 27-6), tested for the presence of human blood, extracted for DNA content, and quantified. The results are tabulated below.

BODY FLUID RESULTS

Item	Description	o-Tol	HemDirect
26-1	Upper Soil Sample	WK+	-
27-1	Deeper Soil Sample	WK+	-
27-2	Deeper Soil Sample	WK+	WK+
27-3	Deeper Soil Sample	WK+	+
27-4	Deeper Soil Sample	WK+	+
27-5	Deeper Soil Sample	WK+	+
27-6	Deeper Soil Sample	WK-	WK+

Key:
+ Positive
- Negative
WK Weak Positive
o-Tol ortho-Tolidine, presumptive test for blood
HemDirect Human hemoglobin, confirmatory test for human blood.

EXPLANATIONS

Blood of any species can appear as a red to brown stain in the dried form and will react positively with the chemicals ortho-tolidine/peroxide. This two-step test is used as a presumptive test for the presence of blood. Other substances are also known to react with ortho-tolidine; therefore, the test is not confirmatory for blood.

EXPLANATIONS (continued)

Blood contains a red pigment, known as hemoglobin (Hb), which is located in the erythrocytes, or red blood cells of vertebrate animal species. Hemoglobin is one of the most abundant proteins found in blood, and can be detected using a specific antigen/antibody reaction. The Seratec HemDirect Hemoglobin Assay is a test that is specific for human hemoglobin and is highly sensitive. The HemDirect Assay is capable of detecting hemoglobin at a concentration as low as 40 ng/ml, or a 1 in 1,000,000 dilution of fresh human blood. Although there is cross-reactivity with other primates and domestic ferret, a positive result with this test on a blood sample or stain is considered most likely to be blood of human origin.

Deoxyribonucleic acid or DNA is found in nucleated cells, e.g., white blood cells, salivary, vaginal and tissue epithelial cells and spermatozoa. It is possible to obtain a profile from DNA deposited by touching an item. An individual may, at any time, contain biological material on his or her hands. This can originate from saliva, perspiration; trace amounts of blood, tears, etc. These DNA-containing fluids can be potentially transferred to an object (i.e. gun grip, steering wheel, tools, clothing) when handling or touching the object. Items can be swabbed, cut, or scraped to obtain the biological material left behind. The DNA can be extracted, and the amount obtained is proportional to the number of DNA-containing cells present.

CONCLUSIONS

1. No human blood was detected in upper soil sample (item 26-1).

2. No human blood was detected in the deeper soil sample (item 27-1).

3. Human blood was detected in the deeper soil (item 27-2 through item 27-6).

4. No human DNA was detected by quantification in the deeper soil samples (item 27-3 through item 27-6).

EVIDENCE DISPOSITION

SERI item 3 was returned to Deputy Cole on January 25th 2021. The remaining submitted evidence will be retained at SERI pending instructions from Deputy Cole. Any remaining case extracts will be retained at SERI.

SERI REPORT REVIEWED DATE MAR 25 2021

SEROLOGICAL RESEARCH INSTITUTE

Angela P. Butler
Senior Forensic Serologist

SERI

EXHIBIT SHEET

SERI CASE NO.: 11034119 **DATE:** 4/20/22 **PERFORMED/ TESTED BY:** AKS **CASE ANALYST:** AKS

EXHIBIT NO.: 57 **EXHIBIT NAME:** Soil Sample Arm (840)

PACKAGING small brown paper bag TLS specimen cup screw top

LABELING See photos

B#1

RESULTS

Otol: QC ✓ see exh 64 lot#

DESCRIPTION

~90g of sandy soil (dump)
few small clusters of brown ~~AKS~~ material disintegrated w/ forceps when trying to examine further.

EXAMINATION

Otol -ve no fibers observed or other material of interest.
no further testing

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB) Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB), Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW	DATE
AJH	MAY 05 2022

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SERI

EXHIBIT SHEET

SERI CASE NO.: 110319 **DATE:** 4/21/22 **PERFORMED/ TESTED BY:** AS **CASE ANALYST:** AS

EXHIBIT NO.: 58 **EXHIBIT NAME:** Soil Sample Area A #1 (84')

PACKAGING small brown paper bag T/S ⇒ Specimen cup - screw cap

LABELING See photos

DESCRIPTION

sandy soil dark colored (~105g) slightly damp

EXAMINATION

Several small fibers, dark, white colored. Several small pieces of possible plant material ^possible orange colored.

Several reddish brown clusters removed to 1.5mL tube. Otol wk twp

58-1

RESULTS

Otol QCV Lot # See CX 64

Hu Direct (See each 64) lot #

58-1 ⊖

4/27/22

DNA Ext	
58-1	77574
BC1	77593
BC2	77594
BC3	77595
BC4	77596
	77597

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW	DATE
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SERI

EXHIBIT SHEET

SERI CASE NO.: 11034119 **DATE:** 4/22/22 **PERFORMED/TESTED BY:** [illegible] **CASE ANALYST** [illegible]

EXHIBIT NO.: 59 **EXHIBIT NAME:** Soil Sample D1 (8412)

PACKAGING small brown paper bag TS → specimen cup screwcap

LABELING see photos

DESCRIPTION ~119g of sandy soil, clump ↑ brown otol -ve

EXAMINATION nothing observed microscopically to remove into 1.5ml tubes

RESULTS

otol QC ✓

see exh 64 Lot ##

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW	DATE
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SERI

EXHIBIT SHEET

SERI CASE NO.: 11034104 **DATE:** 4/12/22 **PERFORMED/ TESTED BY:** AM **CASE ANALYST:** AM

EXHIBIT NO.: 60 **EXHIBIT NAME:** Soil Sumpk CA (843)

PACKAGING small brown paper bag TS → specimen cup screw cap

LABELING See photos

DESCRIPTION ~brown ~85g slightly damp sandy soil

EXAMINATION

numerous ~small pieces of material w/ brownish material w/ embedded apparent fibers. Only observed when soil dried. Collected, otol only WK (+)

red, Black clear/white ↓ 8 x 1.5mL tubes 6 ext for DNA

RESULTS

Otol QC ✓ See ext 04 lot #

DNA ext 4/27/22

60-1	77575
60-2	77576
60-3	77577
60-4	77578
60-5	77579
60-6	77580
BC1	77593
BC2	77594
BC3	77595
BC4	77596
BC5	77597

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB) Swabs considered intact unless noted otherwise

TECHNICAL REVIEW	DATE
AM	MAY 0 [illegible] 22

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SERI

EXHIBIT SHEET

SERI CASE NO.: 1103419 **DATE:** 4/26/22 **PERFORMED/ TESTED BY:** AS **CASE ANALYST:** AS

EXHIBIT NO.: 61 **EXHIBIT NAME:** Soil sample C#2 (844)

PACKAGING small brown paper bag T/S → specimen cup screw cap

LABELING See photos

DESCRIPTION See Below

EXAMINATION

~118g sandy soil | slightly damp small clusters of dark brown material some have reddish brown appearance under microscope. Removed very small pieces wk utol twice for DNA ext.

61-1

RESULTS

0101 QCV

see exh 64 lot #

DNA EXT 4/27/22

61-1	77581
BC1	77593
BC2	77594
BC3	77595
BC4	77596
BC5	77597

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP), Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise

TECHNICAL REVIEW AT	DATE MAY 5 2022

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175:057415

SERI

EXHIBIT SHEET

SERI CASE NO.: ~~1130419~~ 1103419 DATE: 4/20/22 PERFORMED/ TESTED BY: AB CASE ANALYST: AB

EXHIBIT NO.: 62 EXHIBIT NAME: Soil Sample B#2 (846)

PACKAGING small brown Paper bag T/S → specimen cup - Screw cap

LABELING
See photos

DESCRIPTION
~120g sandy soil, ~~dry~~ damp clusters of brown material few clear possible fibers. few pieces of possible plant material. Several pieces of reddish brown dirt. one very small piece of unknown solid material with a clear fiber adhering to it. Removed to a gel lift, for further inspection

EXAMINATION clumps/ clusters of dirt otol tve. sampled ~~2 tubes of~~ colored dirt pieces into 2 1.5mL tubes for Hemdirect. Ext in 200uL dH2O. Material on gel lift placed into 62-1 and 62-1 & 62-2 Ext. for DNAs. Remaining gel lift material placed into manila env. "Soil samples Trace"

RESULTS
otol QC ✓ see exh 64 lot #
Hemdirect (see exh 64 lot #)

62-1 (-)
62-2 AB (-)

DNA Ext 4/27/22

62-1	77582
62-2	77583
BC1	77593
BC2	77594
BC3	77595
BC4	77596
BC5	77597

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW AN	DATE MAY [illegible] 2022

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SERI

EXHIBIT SHEET

SERI CASE NO.: 1103419 DATE: 4/19/22 PERFORMED/ TESTED BY: AS CASE ANALYST: AS

EXHIBIT NO.: 03 EXHIBIT NAME: Soil Sample (848)

PACKAGING Small brown paper bag t/s specimen cup screw top

LABELING see photos

DESCRIPTION

~~19~~ 35g of sandy soil, slightly damp

EXAMINATION

one ~~the possible~~ apparent red colored fiber, blue fibers

clumps/clusters of dark material removed several pieces of and fibers. to 1.5 mL tubes (5 tubes) AS

ext in dH2O

dark material in soil wk otol +ve (slow)

B-3

RESULTS

otol: see exh 64 QC ✓

Hemdirect see exh 64 lot #

03-1	⊖	neg
03-2	↓	↓
03-3		
03-4		

DNA EXT 4/27/22

03-1	77584
03-2	77585
03-3	77586
03-4	77587
BC1	77593
BC2	77594
BC3	77595
BC4	77596
BC5	77597

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS). Not Sealed (NS) Brown Paper Bag (BPB). Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW AJT	DATE MAY 1 2022

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SERI

EXHIBIT SHEET

SERI CASE NO.: 1103419 DATE: 4/15/22 PERFORMED/ TESTED BY: AB CASE ANALYST: AB

EXHIBIT NO.: 4/4mg 64 EXHIBIT NAME: Soil Sample Area B Probe 4+ (850)

PACKAGING small brown paper bag TS
specimen cup
screw top

LABELING see photos

DESCRIPTION ↗ Slightly damp
~8cc of sandy soil light brown
many "clumps" of dark brown
/clusters of material

EXAMINATION several dark possible fibers, red observed
several possible pieces of plant material
removed dark colored pieces and fibers with adhering dark colored material to a 1.5mL tube (2 tubes)
ext. in dH2O for HemDirect (200uL)

dark pieces of soil wk (+) (slow)

RESULTS

Oto 1: 9732/9733 exp 8/11/22 QC ✓

Hemdirect Lot 210079 exp 1/2024
Buffer B210079 exp 1/2024

64-1 } ⊖Neg
64-2

DNA Ext 4/27/22

64-1	77588
64-2	77589
BC1	77593
BC2	77594
BC3	77595
BC4	77596
BC5	77597

*Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW AJH	DATE MAY 1 2022

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SERI

EXHIBIT SHEET

SERI CASE NO.: ~~#130419~~ #, 110319 DATE: 4/20/22 PERFORMED/ TESTED BY: AS CASE ANALYST: AS

EXHIBIT NO.: E5 EXHIBIT NAME: Soil Sample Area E #1 (858)

PACKAGING small brown paper bag T/S → specimen cup screw top

LABELING see photos

DESCRIPTION ~~,~~ brown 2110g dump sandy soil

otol -ve

EXAMINATION no material of interest no further exam

RESULTS

otol QC ✓ see exh key lot#

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Seals considered intact unless noted otherwise.

TECHNICAL REVIEW	DATE
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SERI

EXHIBIT SHEET

SERI CASE NO.: 1105419 DATE: 4/21/22 PERFORMED/ TESTED BY: [illegible] CASE ANALYST: [illegible]

EXHIBIT NO.: 66 EXHIBIT NAME: Soil Sample Area G#1 (860)

PACKAGING

LABELING

See photos

DESCRIPTION

~117g sandy soil, slightly dump, small clusters of sand.

EXAMINATION

no material of interest

no further exam

OTOL - VP

RESULTS

OTOL QC ✓

See exh 64 Lot #

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW [illegible]	DATE MAY [illegible] 2022

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SERI

EXHIBIT SHEET

SERI CASE NO.: 110319 **DATE:** 4/22/22 **PERFORMED/ TESTED BY:** AM **CASE ANALYST:** AM

EXHIBIT NO.: 67 **EXHIBIT NAME:** Soil Sample Stain Probe Area G

PACKAGING small brown paper bag +1s → specimen cup screw top

LABELING

see photos

DESCRIPTION

~57g of slightly damp sandy soil
some clusters of brown material
several dark colored fibers (apparent and)

EXAMINATION <1 long possible fiber? Hair? (no identifiable root)
removed to gel lifter to observe
several reddish brown very small flakes/grains removed to 1.5mL tube along w/ small pieces of soil
ext in loan dH2O 67-1

WC otol tvl

* several fibers + unknown fiber/poss hair
Removed to gel lifter and packaged in manila envelope "soil samples Trace"

RESULTS (Sec 2)

otol QC ✓ see ext log Lot#

Hemdirect see ext log Lot#

67-1 (-)

DNA Ext 4/27/22

67-1	77590
BC1	77593
BC2	77594
BC3	77595
BC4	77596
BC5	77597

Tape Sealed (TS), Manila Envelope (MEs) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Fiber Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW	DATE
DH	MAY 9, 2022

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175:057421

SERI

EXHIBIT SHEET

SERI CASE NO.: 110341 19 **DATE:** 4/21/22 **PERFORMED/ TESTED BY:** AZ **CASE ANALYST:** AS

EXHIBIT NO.: 68 **EXHIBIT NAME:** Soil Sample Beneath House (880)

PACKAGING Small brown paper bag T/S
Specimen Cup Screw Cap T/S

LABELING
See photos

DESCRIPTION ~90g
Fine ~~Fine~~ dry dark brown dirt small pebbles w/ sand plant debris (stems, apparent root material)

EXAMINATION many blue, black ~~yellow~~ red, clear, apparent fibers some in small clusters could not remove all some were stained w/ dark material. Removed some to a 1.5mL tube w/ debris. wk atol+MP ext in 150uL H_2O
2 apparent insects (dead) of unknown species - several legs

RESULTS

See ext 64 Lot #
Heindirect 4/27/22

68-1 (-)

DNA Ext 4/27/22

68-1	77591
BC1	77593
BC2	77594
BC3	77595
BC4	77596
BC5	77597

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB), Swabs considered moist unless noted otherwise.

TECHNICAL REVIEW	DATE
AH	MAY 9 2022

05/25/2022
175:057422

SERI

EXHIBIT SHEET

SERI CASE NO.: 110349 DATE: 4/20/22 PERFORMED/ TESTED BY: AS CASE ANALYST: AS

EXHIBIT NO.: 69, 70 EXHIBIT NAME: Soil Sample of Interest #1 / #2 (337/338)

PACKAGING 5"x8" T/S white env.

LABELING See photos

RESULTS

Otol QC ✓ Lot 9732/9733 exp 8/11/22

DESCRIPTION

69: ~18g light brown dirt fine texture w/ some stems, pieces of plant material, small rocks.

EXAMINATION small ~~pieces~~ pieces of reddish Brown material - rusty 3 long fiber like strands (w/c otol +ve Brown material (slow) no further testing consistent w/ rust rxn ~~collected 3 same tube~~ (strands → gel lifter) plant material, returned to package

70: ~15g see above

NO material of interest. Nothing collected Otol -ve

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW AJL	DATE [illegible]

05/25/2022
175:057423

SERI

EXHIBIT SHEET

SERI CASE NO.: 1103419 DATE: 4/20/22 PERFORMED/ TESTED BY: AS CASE ANALYST: AS

EXHIBIT NO.: 71, 72 EXHIBIT NAME: Soil sample of interest #3, #4

PACKAGING 5"x8" TS white env.

LABELING See Photos

RESULTS (339,340)

otol QC ✓

See exh 69

DESCRIPTION

#71 ~62g light brown dirt w/ some rocks

#72 ~38g " " " "

EXAMINATION

otol -ve #71 + #72

nothing collected

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Filter Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB); Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW AJH	DATE [illegible]

05/25/2022
175:057424

SERI

EXHIBIT SHEET

SERI CASE NO.: 1103419 **DATE:** 4/20/22 **PERFORMED/ TESTED BY:** AG **CASE ANALYST:** AG

EXHIBIT NO.: 73, 74 **EXHIBIT NAME:** Soil Sample of interest #5 #6, #~~5~~

PACKAGING 5"x8" TS white env.

LABELING see photos

RESULTS (342,343)

obol QC ✓
see each 69

DESCRIPTION

#73 ~35g light brown soil w/ rocks

#74 ~30g light brown soil w/ rocks

EXAMINATION

obol - VL
nothing collected

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Fiber Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB) Swabs considered intact unless noted otherwise.

TECHNICAL REVIEW AH	DATE MAY 0 [illegible]

05/25/2022
175:057425

SERI

EXHIBIT SHEET

SERI CASE NO.: 1103419 DATE: 4/26/22 PERFORMED/ TESTED BY: JPS CASE ANALYST: JPS

EXHIBIT NO.: 75, 76, 77 EXHIBIT NAME: Soil Sample of Interest #7, 8, 9 (343, 344, 345)

PACKAGING 5"x8" TS white env

LABELING see photos

DESCRIPTION
#75 ~26g light brown dirt w/ white rocks → no rocks
#76 ~35g " blue fabric pieces w/ rusty staining
#77 ~80g " + rusty pieces of rocks (in 77)

EXAMINATION
nothing of interest in 75 or 76, nothing collected

ext in 150uL dH2O 4/27/22
otol -ve
fabric + rusty rock
slow otol +ve

RESULTS
otol QC see ex 69
Lot 210079 exp 1/2024
Buffer 1S210079 exp 1/2024
Hm direct 4/27/22
77-1 (-)

DNA ext 4/27/22
77-1 77592
BC1 77593
BC2 77594
BC3 77595
BC4 77596
BC5 77597

Tape Sealed (TS), Manila Envelope (ME) Glue Sealed (GS), Heat Sealed (HS), Not Sealed (NS) Brown Paper Bag (BPB), Liber Paper (FP) Standard Swab Wrapper (SSW) Standard Swab Box (SSB). Swabs considered linkat unless noted otherwise.

TECHNICAL REVIEW	DATE
	MAY [illegible] 2022

05/25/2022
175:057426

EXHIBIT E

SAN LUIS OBISPO COUNTY SHERIFF
1585 KANSAS AVE
SAN LUIS OBISPO, CA 93405

SUPPLEMENTAL INCIDENT REPORT

CASE NUMBER	SUPPLEMENT NUMBER
960610965	823
CASE TYPE	CAD INCIDENT NUMBER
HOMICIDE	
REPORTING OFFICER	REPORT DATE
SLSO0588 - COLE, CLINTON	08/09/2022

INCIDENT

LOCATION	DATE	TIME
6-9-22 ANGIE BUTLER , CA US	06/09/2022	11:54

STATION	BEAT	RESPONSE		JURISDICTION
ST24				SLSO

ADDITIONAL INFORMATION

☐ INC SUPP 1

INC SUPP 2

INC SUPP 3

INC SUPP 4

INC SUPP 5

INC SUPP 6

STATUS

CASE STATUS	CASE STATUS DATE	DISPOSITION	DISPOSITION DATE	APPROVAL	APPROVAL DATE
FIL	11/08/2021	AA	04/08/2021	SLSO1138 - MENGHRAJANI, D	08/14/2022

INCIDENT REPORT	SAN LUIS OBISPO COUNTY SHERIFF	CASE NUMBER	REPORT
		960610965	823

PROPERTY

ENTRY NO	INVOLVEMENT	TYPE	MAKE	MODEL
1158	E	53		

SERIAL NUMBER	QUANTITY	COLOR	CALIBER	ITEM	SET NO	EVIDENCE
						N

DESCRIPTION	CUSTODY & ATTR
INTERVIEW ANGIE BUTLER	CUSTODY

NARRATIVE

DATE OF REPORT: 06/09/2022

PURPOSE OF REPORT: Document Speaking With Angie Butler.

On 06/09/2022 at 1102 hours Assistant Chief Investigator Camp and I spoke to Angie Butler from the Serological Institute Lab in Richmond, CA. I previously provided Butler with information provided to DDA Peuvrelle by Elizabeth Johnson a Defense expert witness. This information was regarding the Seratec HemDirect human blood test. I recorded this conversation and booked it in to the Sheriff's Office Property ref RMS # 1158, the following is a synopsis of the conversation.

Butler said there is not a validation study for the HemDirect test for soil but according to SWGDAM you can not and should not validate every sample. SWGDAM is the Scientific Working Group on DNA analysis methods guidelines for the collection and Serological Examination of Biological Evidence. SWGDAM sets the guidelines for Federal, State and local Labs in the United States. In Johnson's report she referenced PCAST, however PCAST does not set the guidelines SWGDAM does. Butler said she believes soil could degrade a sample for DNA testing but she was unaware of the mechanism of how soil could degrade a sample to invalidate the results of HemDirect testing itself. Butler said her lab has a validation study from testing they did in their Lab using a variety of body samples of blood of humans and animals.

Johnson's report showed validation studies of blood that was exposed to the elements such as a garbage can and other items but there was no validation shown for soil in Johnson's report. Butler said the HemDirect test meets all the requirements of forensic evidence. I asked Butler what the information meant to her since she had 12 soil samples that were positive for blood and 24 samples tested negative for blood. Butler said the HemDirect test has its own internal controls that shows the test is working properly and she never had a test where the internal control failed in any of our samples. Butler said it means the tests were valid because she got more negative results than positive ones and if she had a positive in our control samples that would mean something isn't right. Butler only got positive blood results from some of the samples in our excavation site. Butler said if all the samples were positive for human blood it would be a serious red flag.

Butler said it was her opinion the soil samples we provided to her that were 3-4 feet down in a previously dug hole would be protected and less chance of contamination than if the samples were at ground level where they would have more contact with weather and human contamination. Butler used sterile water and the buffer provided by HemDirect in her samples following the manufacturer instructions. This is important to control the PH of the sample otherwise you can get a false negative tests not false positive results. Soil high in iron can have a positive to human blood result with the presumptive test but then you use the confirmatory test which is the HemDirect test. The HemDirect test will not provide a false positive only a false negative due to any chemicals in the soil. The

HemDirect test has a binding agent that attracts to human hemoglobin.

Butler said the HemDirect test can get positive results on samples over 30 years old. The Hem Direct test has a broad sensitivity range for detecting varying hemoglobin. The results of the Seratec aged blood study shoe the HemDirect hemoglobin assay is an applicable test kit for the determination of human blood in the Forensic field.

Butler said many Labs use the HemDirect test and they are not the only Lab that is in detecting aged blood samples at least 30 years old and consistently yields the same results. Butler said she has used the HemDirect card over 100 times and her lab has used it over 1000 times.

CLOSING STATEMENT
Case status cleared by Adult Arrest. Forward to the District Attorney's Office for inclusion with the original report.

Detective C. Cole #0588

CC/mc 06/14/2022