CC-1

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WEATHERPROOF

MEMO

NOTEBOOK NO. 391

Spokane Metals / Junkyard
Sample Log Book #2

2/8/88 - 2/13/88

Sampling Team: Karl Mozenstein
and Steve Livingston

USEPA SF
1025398

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a product of
J. L. DARLING CORPORATION
TACOMA, WASHINGTON 98421 U.S.A.

February 8, 1988 ①

1315 The EIEIFIT, consisting of Karl Morgenstern (KM) and Steve Livingston (SL), began setting up the transects north of the Spokane Metals and Auto Towing business.

A map of the transect line locations is on the following page. Sample points were flagged every 60 feet along the transect lines. Sample locations were choosen according to visual observations of areas void of vegetation, broken battery casings, burned areas, low areas and stained soil.

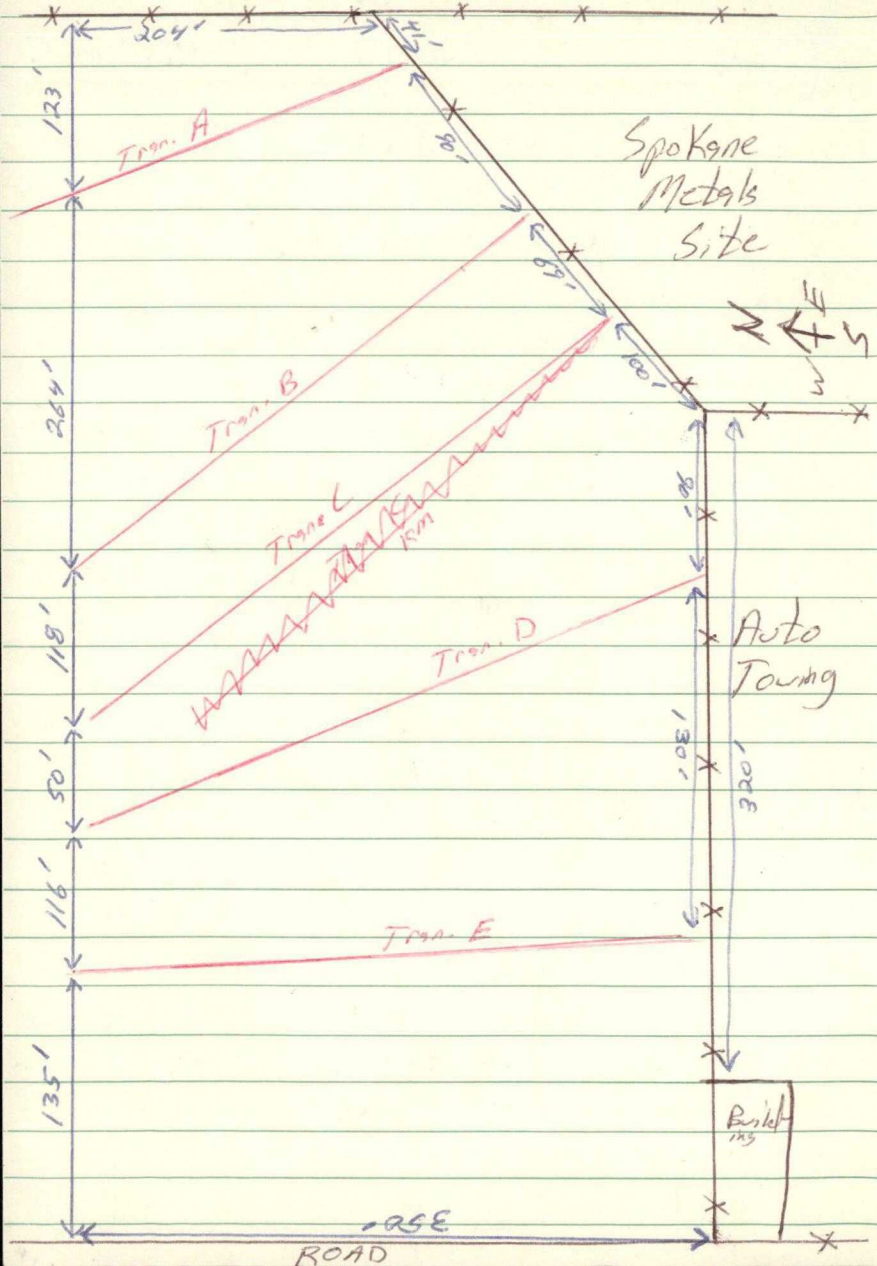
The transects were measured with a tape measure to obtain the orientation of the transect lines (see map).

1530 KM and SL began to sample transect A, located west of Hollister-Stein's N-S fence line.

Karl Morgenstern
2/8/88

Hollister - Steir

②



1540 Collected Soil Sample
A-1

EPA #: 8807-4482
Lab #: MJB685 / JB858
Location: Transect A at 22' North of Spokane Metals fence.
Description: Surface Soil at 0-2"
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Pick-ax used to loosen frozen soil to 2" depth from five aliquots. Material homogenized in stainless steel bowl with stainless steel spoon.
Containers: 3-16oz jars

1550 Collected Soil Sample
A-2

EPA #: 8807-4483
Lab #: MJB686 / JB859
Location: 5' to east of transect A line and 60' North of sample A-1.
Description: Surface soil at 0-2".
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as A-1
Containers: 3-16oz jars

Karl Morgenstern 2/8/88

1605 Collected Soil Sample
A-3

EPA #: 8807-4484
Lab #: MJB687 / JB860
Location: 5' east of transect A line and 50' north of sample A-2.
Description: surface soil at 0-2"
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Same as A-1.
Containers: 3-16oz jars

1620 Collected Soil Sample
A-4

EPA #: 8807-4485
Lab #: MJB688 / JB861
Location: 10' east of transect A line and 60' north of sample A-3.
Description: Surface soil at 0-2"
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as A-1.
Containers: 3-16oz jars

Karl Morgenstern
2/8/88

1630 Collected Soil Sample
A-5

EPA#: 8807-4486
Lab#: MJB689/JB862
Location: 20' east of transect A line and 50' north of A-4.
Description: surface soil at 0-2".
Aliquots: 5
Sampler: Steve Livingston
Sample Methods: Same as A-1.
Containers: 3-16oz jars.

Note: The E&E/FIT decontaminated the pick-axs, gloves and when necessary the stainless steel bowls and spoons between samples. The equipment went through an alconox wash, followed by a methanol rinse and a final carbon free water rinse.

Prior to setting up the transect lines, the HNu was properly calibrated and, combined with the mini ram particle counter, the site was surveyed for airborne particulates and organic vapors. Neither instrument indicated

[illegible] 2/18/88

readings above background

1700 The EIEIFIT departed from the site.

[illegible]
2/8/88

Feb. 9, 1988

0815 The E&E/FIT arrived north of the Ken Well field and began to set up the decon line and calibrate the safety monitoring equipment (i.e. HNU and mini ram).

The weather was cold and cloudy with slight winds from the SW at 5-10mph (Temp. = 30-35°F).

0930 The E&E/FIT, consisting of Karl Morgenstern and Steve Livingston, began to sample Transect B while Joe Hunt continued to sample from nearby residences.

0945 Collected Soil Sample B-1

EPA #: 8807-4830
Lab #: MJB 690/JB863
Location: 30' north of the Spokane Metals fence along the Transect B line.
Description: Surface soil at 0-2".
Aliquots: 5

[illegible signature] 2/19/88

Sampler: Karl Morgenstern
Sample Method: Pick-ax was used to loosen the frozen soil to 2" depth from five aliquots. The material was homogenized in stainless steel bowls with stainless steel spoons and the sample containers were filled with the material.
Containers 3-16oz jars, 2-4oz jars.

1000 Collected Soil Sample
B-2

EPA#: 8807-4487
Lab#: MJB691/JB852
Location: Along the Transect B line and 55' north of B-1.
Description: Surface soil at 0-2"
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Same as B-1.
Containers: 3-16oz jars and 2-4oz jars.

Karl Morgenstern
2/9/88

1020 Collected Soil Sample
B-3

EPA#: 8807-4488
Lab#: MJB692/JB864
Location: Along the transect B line and 60' north of B-2.
Description: Surface Soil at 0-2".
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as B-1
Containers: 3-16oz jars.

1040 Collected Soil Sample
B-4

EPA#: 8807-4489
Lab#: MJB693/JB865
Location: 15' east of transect B line and 75' north of B-3.
Description: Surface Soil at 0-2"
Aliquots: 5
Sample Method: Same as B-1
Sampler: Steve Livingston
Containers: 3-16oz jars

Karl Morgenstern
2/9/88

1055 Collected Soil Sample
B-5

EPA#: 8807-4490
Lab#: MJB694/JB866
Location: 5' east of transect B line and 60' north of B-4.
Description: Surface soil at 0-2".
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Same as B-1
Containers: 8-16oz jars (Duplicate sample - EPA# 8807-4491, Lab# MJB743/JB869)

1115 Collected Soil Sample
C-1

EPA#: 8807-4492
Lab#: MJB695/JB853
Location: 5' east of Transect C line and 25' north of Spokane Metals fence.
Description: Surface soil at 0-2".
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Pick-ax was used to loosen the top 2" of soil. The soil was homogenized from 5 aliquots and placed in sample containers. [illegible] 2/9/88

Containers: 6-16oz, 4-4oz jars
(Duplicate sample - EPA#8807-4493, lab#MJB744/JB868).

1130 Collected Soil Sample
C-2

EPA#: 8807-4494
Lab#: MJB696/JB869
Location: 5' west of Transect line C and 65' north of C-1.
Description: Surface soil at 0-2".
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Same as C-1.
Containers: 3-16oz.

1150 The EE/FIT decontaminated all sampling equipment and departed for lunch.

The sampling equipment was decontaminated with an alconox wash, methanol rinse followed by a final carbon-free water rinse. The equipment was decontaminated between sample locations.

[signature]
2/9/88

1315 Collected Soil Sample
C-3

EPA #: 8807-4495
Lab #: MJB697/JB870
Location: 15' east of transect C line and 80' north of C-2.
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as C-1.
Containers: 6-16 oz jars (Duplicate sample - EPA # 8807-4496, Lab # MJB698 and JB871)

1330 Collected Soil Sample
C-4

EPA: 8807-4497
Lab #: MJB745/JB872
Location: 20' east of Transect C line and 60' north of C-3.
Description: Surface soil at 0-2".
Aliquots: 5
Samples: Steve Livingston
Sample Method: Same as C-1
Container: 3-16 oz jars

[signature]
2/9/88

Feb 13, 1988

0900 The E&E/FIT, consisting of Karl Morgenstern and Steve Livingston, returned to the site.

The weather was partly cloudy, temp 32-38°F and winds gusting from the west at 15-25 mph.

The E&E/FIT removed the hydrant adaptors and picked up sample location survey flags. Some final measurements were taken of some sample locations and of the site in general.

1050 The E&E/FIT proceeded to the Federal Express office to ship the final shipment of samples.

1125 Stopped for lunch.

1230 The E&E/FIT departed Spokane for Seattle.

1930 The E&E/FIT arrived in Seattle. [signature] 2/13/88

1345 Collected Soil Sample C-5

EPA#: 8807-4498
Lab#: MJB699/JB873
Location: 5' east of transect C line and 70' north of C-4.
Description: Surface soil at 0-2"
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as C-1
Container: 3-16oz jars.

1400 Collected Soil Sample D-1

EPA#: 8807-4499
Lab#: MJB730/JB854
Location: Along Transect D line and 40' north of Auto Towing fence.
Description: Surface soil at 0-2"
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Pick-ax was used to loosen the top 2" of soil. The soil was homogenized with stainless steel spoons and bowl and sample containers were filled.
Containers: 3-16oz and 2-4oz [signature] 2/13/88

1420 Collected Soil Sample
D-2

EPA#: 8807-4500
Lab#: MJB731/JB874
Location: Along transect D line and 60' north of D-1.
Description: Surface Soil at 0-2"
Aliquots: 5
Sampler: Steve Livingston
Sample Methods: Same as D-1
Containers: 3-16oz

1435 Collected Soil Sample
D-3

EPA#: 8807-4501
Lab#: MJB732/JB875
Location: Along Transect D line and 45' north of D-2.
Description: Same as D-1.
Aliquots: 5
Sampler: Karl Morgenstern
Sample Methods: Same as D-1
Containers: 3-16oz jars

2/9/88

further documentation.

2/12/88

Feb. 12, 1987

0800 The E&E/FIT arrived at the site
The weather was clear and sunny with temp. 42-50°F and winds gusting from the southwest at 5-20 mph.

0835 The E&E/FIT began to set-up a decon line with a steam cleaner and calibrate the safety monitoring equipment.

0940 The augers for the minuteman power auger were steam cleaned and decontaminated prior to use in two bore holes on-site.

1000 Joe Hunt and Steve Livingston proceeded on-site to utilize the Minute-man Power auger for two bore holes. Meanwhile Karl Morgenstern documented and packaged samples for shipment that afternoon.

1400 The E&E/FIT departed the site to ship samples and do

1500 Collected Soil Sample
D-4

EPA #: 8807-4502
Lab #: MJB933/JB876
Location: Along transect D line and 75' north of D-3.
Description: Surface soil at 0-2" collected from near burned battery casings.
Aliquots: 5
Samples: Steve Livingston
Sample Method: Same as D-1
Containers: 3-16 oz jars.

1525 The E&E/FIT deconed all equipment and began to pack-up for the day.

1600 The E&E/FIT returned to Motel for documentation and sample packaging.

Karl Morgenstern
2/9/88

Feb. 10, 1988

0830 The E&E/FIT arrived at the site and began to set up the Decon. line and calibrated the safety monitoring equipment.

The weather was cool (30-40F) and partly cloudy with slight winds from the SW at 5-10mph.

Karl Morgenstern and Steve Livingston began to sample the transects while Joe Hunt continued to sample nearby residents.

1015 Collected Soil Sample D-5

EPA #: 8807-4803
Lab #: MJB734/JB882
Location: Along the Transect D line and 40' north of D-4.
Description: Surface Soil at 0-2" and collected near battery casings.
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Same as D-1
Containers: 3-16oz jars.

2/10/88

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Containers: 1-1liter poly (Lot#C7198152)
4-1liter Amber (Lot#H8004054)
2-40ml Vials (Lot#B7324024)

1800 The E&E/FIT finished for the day.

2/11/88

Aliquots: 1
Purge Time: Well is in continual use so that no purging was necessary.
Samplers: Karl Morgenstern and Steve Livingston
Sample Method: Same as Central well.
Containers: 1-1 liter poly (Lot # C7198152)
4-1 liter Amber (Lot # H8004054)
2-40ml Vials (Lot # B7324024)

1545 The EIEIFIT returned to the motel to document and package samples.

1700 Collected Transport Blank Sample
Water Blank
EPA #: 8807-4834
Lab #: MJB759/JB928
Location: Transport Blank
Description: Water blank sample, filled with carbon-free water.
Aliquots: 1
Sampler: Karl Morgenstern
Sample Method: The sample bottles were filled with carbon-free water.

2/11/88

1025 Collected Soil Sample
E-1
EPA #: 8807-4804
Lab #: MJB735/JB883
Location: Along Transect E line and 5' north of the Auto Towing fence.
Description: Surface soil at 0-2", collected from an oil stained area.
Aliquots: 5
Sampler: Karl Morgenstern
Sample Methods: Pick-ax was used to loosen the top 2" of frozen soil from 5 aliquots. The material was homogenized in a stainless steel bowl with a stainless steel spoon. The sample containers were filled with the material.
Containers: 3-16oz jars

1035 Collected Soil Sample
E-2
EPA #: 8807-4805
Lab #: MJB736/JB884
Location: Along Transect E line and 65' north of E-1.
Description: Surface soil at 0-2"

2/10/88

Aliquots: 5
Sampler: Steve Livingston
Sample Method: Same as E-1
Containers: 3-16oz jars

1045 Collected Soil Sample
E-3

EPA#: 8807-4806
Lab#: MJB737/JB885
Location: 5' east of transect E line and 75' north of E-2.
Description: Surface Soil at 0-2".
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as E-1
Containers: 3-16oz jars

1100 Collected Soil Sample
E-4

EPA#: 8807-4807
Lab#: MJB738/JB886
Location: 10' east of transect E line and 65' north of E-3.
Description: Surface soil at 0-2".
Aliquots: 5
Sampler: Steve Livingston [illegible] 2/10/88

Purge Time: Well is in continual use so no purging took place.
Samplers: Karl Morgenstern and Steve Livingston
Sample Method: Sample bottles were filled from an outlet on the pipe from the well. The water is chlorinated at the well screen so the samples were chlorinated water.
Containers: 2-1 liter poly's (Lot# C7198152)
2-1 liter Ambers (Lot# H8004054)
6-40ml Vials (Lot# B7324024)
(Duplicate sample collected - triple volume)

1515 Collected Ground Water Sample
Central Well

EPA#: 8807-4833
Lab#: MJB758/JB911
Location: Well at Division St west two blocks on Francis St.
Description: Central well has 4 submersible pumps that pump 21,400,000 gal/day. The outside diameter of the well is 9" and depth to water is 214'. The total depth to bottom is 272'. [illegible] 2/11/88

1345 Arrived at the Spokane Water Dept and received permission to sample two of the three municipal wells near the site. The municipal well located on Crestline Road (Hoffman well) could not be sampled because it is not in use until May and could not be turned on for sampling purposes. The Nevada and Central wells could be sampled since they are in use.

1410 Collected Ground Water Sample Nevada Well

EPA #: 8807-4832
Lab #: MJB757 / JB910
Location: Southwest of site on Nevada St. and N. Foothills Drive.
Description: Nevada well has 4 submersible pumps and pumps 35,720,000 gal/day. The outside diameter of the well is 21" and depth to water is 78'. The total depth to bottom is 122'.
#Aliquots: 1

Karl Mosgenstern
2/11/88

Sample Method: Same as E-1
Containers: 3-16oz jars

1110 Collected Soil Sample E-5

EPA #: 8807-4808
Lab #: MJB739 / JB887
Location: 20' west of transect E line and 50' north of E-4.
Description: Surface soil at 0-2", collected soil from ground pile of burnt battery casings.
#Aliquots: 5
Sampler: Karl Mosgenstern
Sample Method: Same as E-1
Containers: 3-16oz jars

1120 The E&E/FIT located two areas in the field (Ken wall property) to collect soil grab samples. One area was near the Auto Towing fence line and had oil stains and the other location was off of Transect C line and had transformer parts scattered on the ground.

Karl Mosgenstern 2/10/88

1125 Collected Soil Sample
KW #1

EPA #: 8807-4809
Lab #: MJB740/JB888
Location: 50' west of E-1 along the Auto Towing fence and 5' north of the fence.
Description: Surface soil at 0-2" with oil stained ground and void of vegetation.
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as E-1
Containers: 3-16oz jars

1130 Collected Soil Sample
KW #2.

EPA #: 8807-4810
Lab #: MJB741/JB889
Location: 5' east of transect line C and 40' north of C-4.
Description: Surface soil at 0-2" and ground littered with broken transformer parts.
Aliquots: 5

Karl Morgenstern
2/10/88

1120 The E&E/FIT departed for lunch and decide which wells will be sampled.

1200 The E&E/FIT went to the motel and began calling well owners to obtain permission to sample wells.

1310 After extensive calling most domestic wells are not where well logs indicate or are no longer in service. A background domestic well was located, but no down-gradient domestic wells are apparent from the well logs.

1330 Joe Hunt proceeded to the domestic background well location to obtain a sample, while Karl Morgenstern and Steve Livingston went to the Spokane Public Water to sample municipal wells side gradient and downgradient of the site.

Karl Morgenstern
2/11/88

Feb. 11, 1987

0800 The E&E IFIT arrived at the site.

The weather was clear and sunny with temp being 40-48°F and slight winds from the west at 5-10 mph.

The E&E IFIT split up with Steve Livingston and Joe Hunt taking elementary school soil samples while Karl Morgenstern traveled to the WDOE office in Spokane to collect available well logs for a 4-mile radius around the site.

0915 Karl Morgenstern arrived at the WDOE and began Xeroxing well logs.

1035 Karl Morgenstern completed Xeroxing 349 well logs and returned to the site.

Karl Morgenstern
2/11/88

Sampler: Steve Livingston
Sample Method: Same as E-1
Containers: 3-16 oz jars

1135 The E&E IFIT went into the Auto Towing facility to collect surface soil samples.

1140 Collected Soil Sample AT #1

EPA #: 8807-4811
Lab #: MJB675/JB890
Location: ~~[illegible]~~ KM # collected in a line along the southeast portion of the E-W fence just north of the Spokane Junkyard.
Description: Surface soil at 0-2"
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Stainless steel spoons were used to collect the surface soil from five locations along a line parallel to the E-W fence. The soil was homogenized in a stainless steel bowl and the sample containers were filled with the material.

Karl Morgenstern 2/10/88

Containers: 3-16oz jars

1145 Collected Soil Sample
AT#2
EPA#: 8807-4812
Lab#: MJB676/JB891
Location: collected along the east part of the N-S fence adjoining the Spokane Metals site.
Description: Surface soil at 0-2".
#Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as AT#1.
Containers: 3-16oz jars

1215 The E&E/FIT went to Hollister-Stier to let them know when we plan on collecting the surface soil samples along the ~~the~~ km west side of their property.
Karl Morgenstern was told to return at 1230-1300 hours when they would be back from crew.

Karl Morgenstern
2/10/88

and pick-up for the day.

1530 The E&E/FIT departed the site and returned to the motel to document and package the samples collected.

Karl Morgenstern
2/10/88

(H-S #3 Cont.)

Description: Surface Soil at 0-2"
Aligouts: 5
Sampler: Steve Livingston
Sample Method: Same as H-S #1.
Containers: 3 - ~~18~~ 8 oz jars

All sampling equipment (i.e pickaxes, bowls, ~~and~~ spoons and gloves) were properly decontaminated between samples. The equipment was washed with an Alconox mix, rinsed with Methanol and final rinse with carbon-free water. All decontamination fluids were drummed in a 55 gallon drum.

At Hollister-Stair split samples were collected for H-S using bottles they supplied. These samples were delivered to Hollister-Stair following our sampling on their property.

1400 Returned to command post north of Ken Wallis field and began to decontaminate equipment
[signature] 2/10/88

1245 Collected Rinsate Sample
TR #1

EPA #: 8807-4825
Lab #: MJB748/JB904
Location: Rinsate of decontaminated stainless steel bowl used to homogenize ~~1~~ transect soil samples.
Description: Water collected from a sample bowl.
Aligouts: 1
Samplers: Karl Morgenstern and Steve Livingston
Sample Method: Poured carbon free water into decontaminated stainless steel bowl and filled the sample bottles from the water in the bowl.
Containers: 1-1 liter poly (Lot # ~~[illegible]~~ C7198152)
4-1 liter Amber (Lot # H8004054)
2-40 ml Vials (B7324024)

1250 Collected Rinsate Sample
TR #2

EPA #: 8807-4826
Lab #: MJB749/JB905
Description: Water collected from a sample bowl.
[signature] 2/10/88

Aliquots: 1
Samplers: Steve Livingston and Karl Morgenstern
Sample Method: Same as TR#1.
Containers: 1 - 1 liter poly (Lot# C7198152)
4 - 1 liter Amber (Lot# H8004054)
2 - 40ml Vog (Lot# B732 4024)

1300 Returned to Hollister-Stein to begin sampling the Hollister-Stein (H-S) transect.

1315 Collected Soil Sample H-S #1
EPA #: 8807-4813
Lab #: MJB681 / JB892
Location: collected along the western property line (i.e N-S fence) at 68' north of the E-W fence / N-S fence corner (southwest point of Hollister-Stein property).
Description: surface soil at 0-2"
Aliquots: 5
Sampler: Steve Livingston
Sample Method: Stainless steel spoons were used to collect surface soil

Karl Morgenstern 2/10/88

from 5 locations along a line parallel to the N-S fence. The soil was homogenized in a stainless steel bowl and sample containers were filled.
Containers: 3 - ~~1~~ 8 oz jars and 2 - 4 oz jars

1325 Collected Soil Sample H-S #2
EPA #: 8807-4814
Lab #: MJB682 / JB893
Location: collected 115' north of corner of E-W / N-S fences.
Description: Surface soil at 0-2"
Aliquots: 5
Sampler: Karl Morgenstern
Sample Method: Same as H-S #1
Containers: 3 - ~~1~~ 8 oz

1335 Collected Soil Sample H-S #3
EPA #: 8807-4815
Lab #: MJB683 / JB894
Location: Collected 207' north of the corner of E-W / N-S fences along the western property line.

Karl Morgenstern 2/10/88