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 Los Alamos Area Office, MS A316
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Date: May 24, 1999
 Refer to: EM/ER:99-135

Mr. John Kieling
 NMED-HRMB
 P.O. Box 26110
 Santa Fe, NM 87502

SUBJECT: RESPONSE TO RSI FOR THE RFI REPORT FOR PRSs 09-002 AND 09-011(b)

Dear Mr. Kieling:

Enclosed is the Los Alamos National Laboratory Environmental Restoration (ER) Project's response to your Request for Supplemental Information (RSI) for the Resource Conservation and Recovery Act Facility Investigation Report for Potential Release Sites (PRSs) 09-002 and 09-011(b). PRS 09-002 is listed on Table A of the Hazardous and Solid Waste Amendments Module of the Laboratory's Hazardous Waste Facility Permit. The RSI was received at the ER Project Office on April 27, 1999.

If you have any questions or concerns please feel free to call Dave McInroy at (505) 667-0819 or Joe Mose at (505) 667-5808.

Sincerely,

Julie A. Canepa, Program Manager
 LANL/ER Project

Sincerely,

Theodore J. Taylor, Program Manager
 DOE/LAEO

JC/NR/ev

Enclosure: Response to RSI for RFI Report for PRSs 09-002 and 09-011(b)



HswA LANL 5/15/99

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Mr. John Kieling
EM/ER:99-135

-2-

May 24, 1999

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**Response to
Request for Supplemental Information, 09-002 and 09-011(b) RFI Report**

INTRODUCTION

To facilitate review of this response, the New Mexico Environment Department's (NMED's) comments are included verbatim. The comments are divided into general and specific categories as presented in the letter. Los Alamos National Laboratory's (LANL's) responses follow each NMED comment.

GENERAL COMMENTS

NMED Comment

1. *At the time of the approval, the RFI Work Plan for Operable Unit 1157 made no mention of the property appraisal form referenced in §2.2.2 or to the uncertainties associated with the exact location of PRS 09-002. For this reason, an investigation methodology was approved for a location which RPMP now has reason to question. LANL should submit a Sampling and Analysis Plan (SAP) to further investigate the location and nature and extent of contamination from PRS 09-002.*

LANL Response

1. The OU 1157 RFI Work Plan does indicate that the location of the burn pit was known (Section 6.6.6.1, page 6-112) and describes it as a "...10-ft wide by 10- ft long by 3 –ft deep..." (Section 5.6.1.4, page 5-68), but the Work Plan does not cite a reference for information on the burn pit. The Solid Waste Management Units Report describes the PRS 9-002 burn pit as having the dimensions of 20-ft by 40-ft by 3-ft. (This description appears to have been taken from the property appraisal form discussed below in the response to specific comment no. 3.) In order to resolve this discrepancy, the OU 1157 team had former employees walk the site to locate the pit, prior to implementing the sampling plan. Obviously, the dimensions of the pit located by the former employees do not conform to the description in the SWMU report. As is discussed under the specific comment responses below, there is very little archival information available to aid in locating the burn pit. In fact, there appears to be only one, one page document that lists a burn pit at TA-9. Also, as discussed below, LANL has reviewed historical aerial photographs of TA-9 and can find no evidence of a burn pit. LANL believes the best source of information is the one chosen to locate the pit, i.e., the recollection of former employees. Nevertheless, LANL offers to provide a tour of the Old Anchor Ranch-East site for NMED representatives so that they can confirm that the pit location is the correct one.

NMED Comment

2. *Phase I Investigations were performed at both sites according to the approved RFI Work Plan for Operable Unit 1157. Since no hazardous constituents were identified above background or detection limits at PRS 09-011(b) RPMP concurs with LANL's request for NFA at this PRS. This concurrence is consistent with NFA Criterion 3, which states, "No release to the environment has occurred or is likely to occur in the future from the solid waste management unit/area of concern."*

LANL Response

LANL concurs and will take no further action on PRS 09-011(b).

SPECIFIC COMMENTS

NMED Comment

3. §2.2.1 Site Description, page 5

"PRS 09-002 is a decommissioned, inactive burn pit located near the old Far Point firing site north of the active TA-9 area... The components of this PRS is the pit itself, which is a shallow, below ground level, depression, 10 ft by 13 ft by 2 to 3 ft deep."

The size of the burn pit as described in §2.2.2 Operational History (page 8), which is based on the written property appraisal form (Spillman 1949, 14916), is "An irregular shaped excavation of earth approximately 20 ft. wide by 40 ft. long and 3 ft. in depth..."

Please submit the property appraisal form (Spillman 1949, 14916) and any information available which would confirm the sampled site is the only former burn pit area in TA-09. It is possible that the burn pit described in the property appraisal form has been backfilled to grade and not identified and sampled.

LANL Response

A copy of the appraisal form was inadvertently omitted from the RFI report. A copy of the one page form is attached (Attachment 1). This is only archival document believed to exist that suggests that a burn pit was ever used.

NMED questions whether the burn pit described in the property appraisal form could have been backfilled to grade. Indeed, it is possible that the pit described in the appraisal form was backfilled to grade. The problem, is how to locate such a backfilled pit. Due to the reported nature of the disposed material, burned paper and photographs, LANL does not believe that any available geophysical methods could be used to locate the pit. LANL believes the best source of information is the one chosen to locate the pit, i.e., having former employees visit the site and locate the actual pit. The pit described in the RFI Report and selected for sampling is below grade and is well stabilized with grass. Based on this, LANL believes that, if the pit selected for sampling is the correct location, then the RFI surface sampling results should have been an accurate characterization of the pit.

NMED Comment

4. §2.3.3 Preliminary Conceptual Model, page 9

"Even though it has smaller dimensions than described in the 1949 property appraisal form, the 10-ft by 13-ft topographic depression 300 ft northeast of the Far Point firing site identified by the two retired TA-9 employees is the most probable location of the burn pit. "

Please verify the location of the burn pit using historical photographs or any other historical information which may be available. Both retired employees interviewed stated the identified burn pit location was the "probable location" of the former burn pit which was operational during the period they were employed. The statement from the former employees indicates that they are uncertain of the location of the former burn pit. In addition, it is possible that more than one burn pit was located at TA-09. Please clarify the location and explain the size discrepancy from the location identified by the retired employees and the location described in the property appraisal form. Also, please verify that only one burn pit formerly existed at TA-09.

LANL Response

As stated above there is a paucity of historical documents on the presence of burn pits at TA-9. There are aerial photographs available, but most are of active areas at TAs 8 and 9 (Anchor Ranch-West and Old Anchor Ranch-East). There are fewer photographs of the Far Point Firing Site and Burn Pit Area, which is further to the east. Attached are copies of historical aerial photographs, some with the Far Point Firing Site area enlarged.

Photo 1- Oblique aerial photograph from about 1947 of TA-8 and TA-9. View toward the east. The Far Point firing Site is in the middle area of the photograph

Photo 2- Enlargement of the Far Point Firing Site Area of the 1947 photograph. It can be noted that much of the area has been cleared of trees with the exception of the grove of pine trees east of the Far Point Firing Site. This provides a relatively unobstructed view of any ground level structures. The PRS 09-001(c) Recovery Pit, Structure TA-9-15, is clearly visible in the photo. The top of this below ground recovery pit was approximately 12-ft by 12-ft and had a steel cover. Since this 12 by 12-ft structure is visible in the aerial photograph, a 20-ft by 40-ft pit, possibly blackened by burned material should also be visible. Yet, there does not appear to any such feature in the photo.

Photo 3- Oblique aerial photograph from about 1949 of TA-8 and TA-9. The main subject area of this photograph, with a view towards the southeast, appears to be TA-8 building construction. The Far Point Firing Site, however, is visible in the upper middle left part of the photo.

Photo 4- Enlargement of the Far Point Firing Site Area of the 1949 photograph.

Photo 5- Overhead aerial photograph of the TA-9 Old Anchor Ranch-East area from about 1958. Unfortunately, the area of coverage does not extend far enough east to include the RFI Report Burn Pit Location. The area immediately adjacent to the Far Point Firing Site is visible, but there are no features in the photo that would suggest the presence of a burn pit.

Photo 6- Present day photograph of a small depression at TA-9. This photo shows a small depression located of north of the RFI Report Burn Pit.

A second, small depression does exist in the same general area (Photograph 6). The size of the second depression (roughly a square with 8-10 ft sides, 1 to 2 feet deep) is even smaller than the pit selected for RFI sampling. The soil in the bottom of the depression was examined for the presence of ash and none was observed. Tuff bedrock is exposed at the ground surface in the area surrounding the depression which indicates there is no hidden, backfilled area associated with the depression. Due to its small size, this second depression was discounted as a potential burn pit and was not included in the sampling.

A large number of 1960-era, ground level photographs exist which document the decommissioning of buildings and other structures at the TA-9 Old Anchor Ranch-East. LANL reviewed these photographs but did not find any photos of burn pits or pit-like structures. This suggests, perhaps, that the burn pit was such a minor, unimportant structure that there was no need to take photographs of it.

NMED Comment

5. §2.3.4.2 *Field Investigation, page 10*

"On May 10, 1994, two 0 to 0.5 ft. surface soil samples (AAB0896 and AAB0897) were collected at locations 09-6000 and 09-6001. Soil moisture at the time of sampling was normal, that is, dry to slightly moist, the weather was cool, and the skies were overcast. No ash or burned debris were observed in the soil sampling locations."

No trace amounts of ash or burned materials were observed at the sampled locations. Please submit any information regarding ash disposal or backfilling which was conducted at PRS 09-002 to ensure samples were collected from the burn pit. Clarify if the burn pit was scraped clean after use or if backfill material was used to cover the burn pit. Please clarify the environmental media sampled (e.g., soil, sediment, tuff). If backfill material was sampled, this most likely does not represent conditions resulting from activities conducted at PRS 09-002.

LANL Response

The sampled material was soil. There is little or no visible evidence of gross soil erosion of the pit side walls. Because of the stabilized appearance of the pit, LANL believes that deposition of soil into the pit has been minimal. Samples collected from bottom of the pit should have provided a good indication of the presence of any contaminants remaining from the burning of classified documents. There is no spoil pile adjacent to the pit that would suggest that the pit had been scraped clean. However, a note on the property appraisal form indicates the structure was removed in 1965. If the contents of the pit were removed in 1965, then that may explain why no ash or burned debris was found at the time of RFI sampling. LANL proposes that NMED visit the site to inspect the pit and surrounding area.

NMED Comment

6. §2.3.4.3 Data Review, page 11

"No radionuclide were identified for analysis in the investigation of the PRS." and "No organic chemicals were identified for analysis in the investigation of this PRS."

Due to limited background information relating to past operational history, discrepancies in the exact location and size of the burn pit, amount of material disposed of in the burn pit, and only personal knowledge from former employees of materials disposed of in the burn pit, full suite analyses should be conducted on all additional samples at the location of the burn pit.

LANL Response

Beta/gamma radiation measurements, taken at the time of RFI sampling to ensure worker safety did not show any readings above background. Likewise, organic vapor measurements, taken for worker safety reasons, were less than 1 ppm. Although LANL does not believe the submittal of a full sampling and analysis plan is necessary, LANL proposes that two additional samples be collected and analyzed for full suite analyses in order to address NMED's concerns over the nature and extent of contamination at PRS 09-002. It is proposed that these samples be collected in the burn pit at the surface and at the tuff interface. In addition, a sample will be collected at any depth interval where staining or burn residues are found. LANL requests that NMED participate in the decision on selecting the additional sampling location. The results of the additional sampling will be provided to NMED. LANL further requests that, upon approval of this RSI response, NMED not require the submittal of a sampling and analysis plan for PRS 09-002.



Photo 1 ca 1947

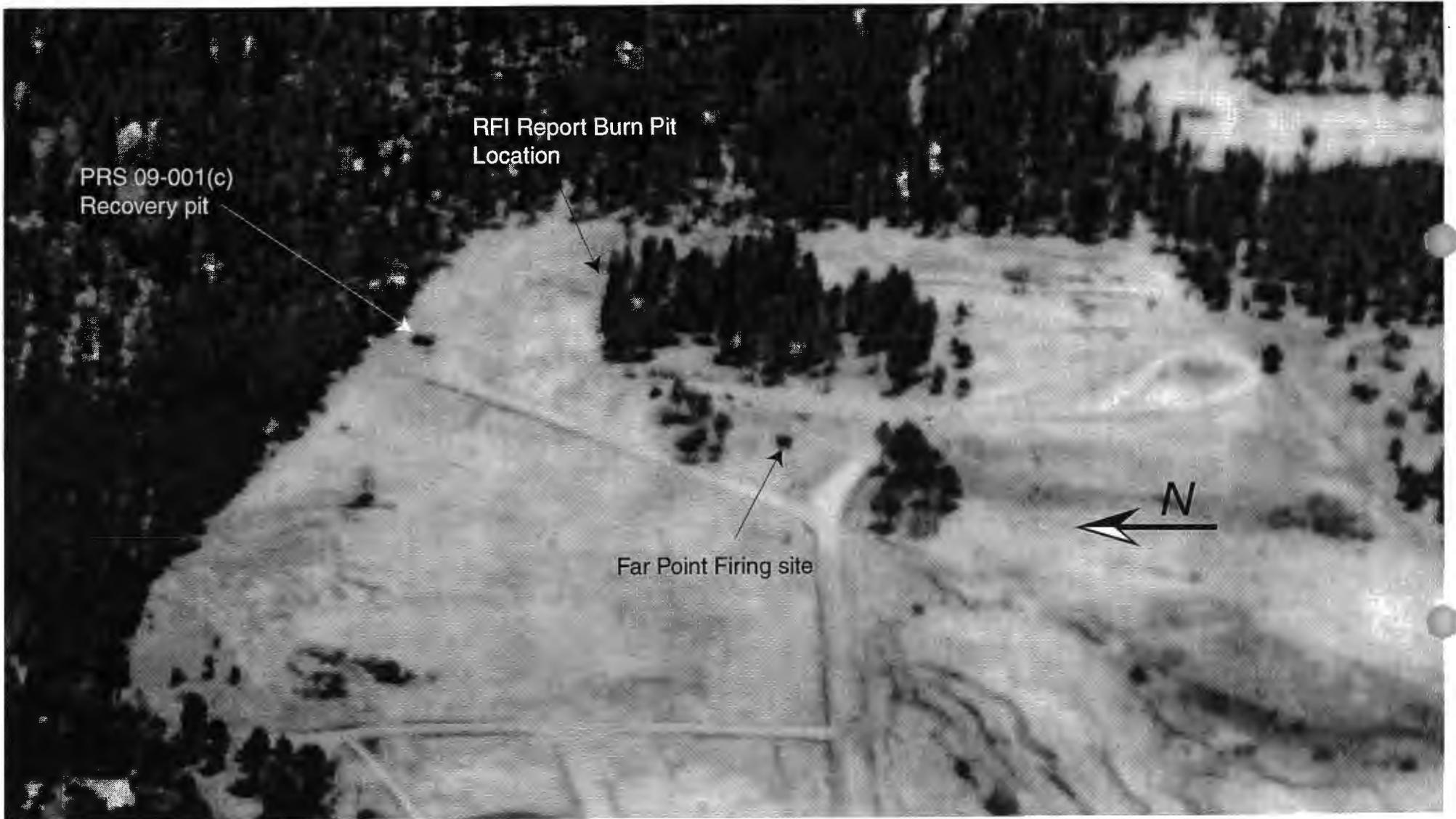


Photo 2 (enlarged area)

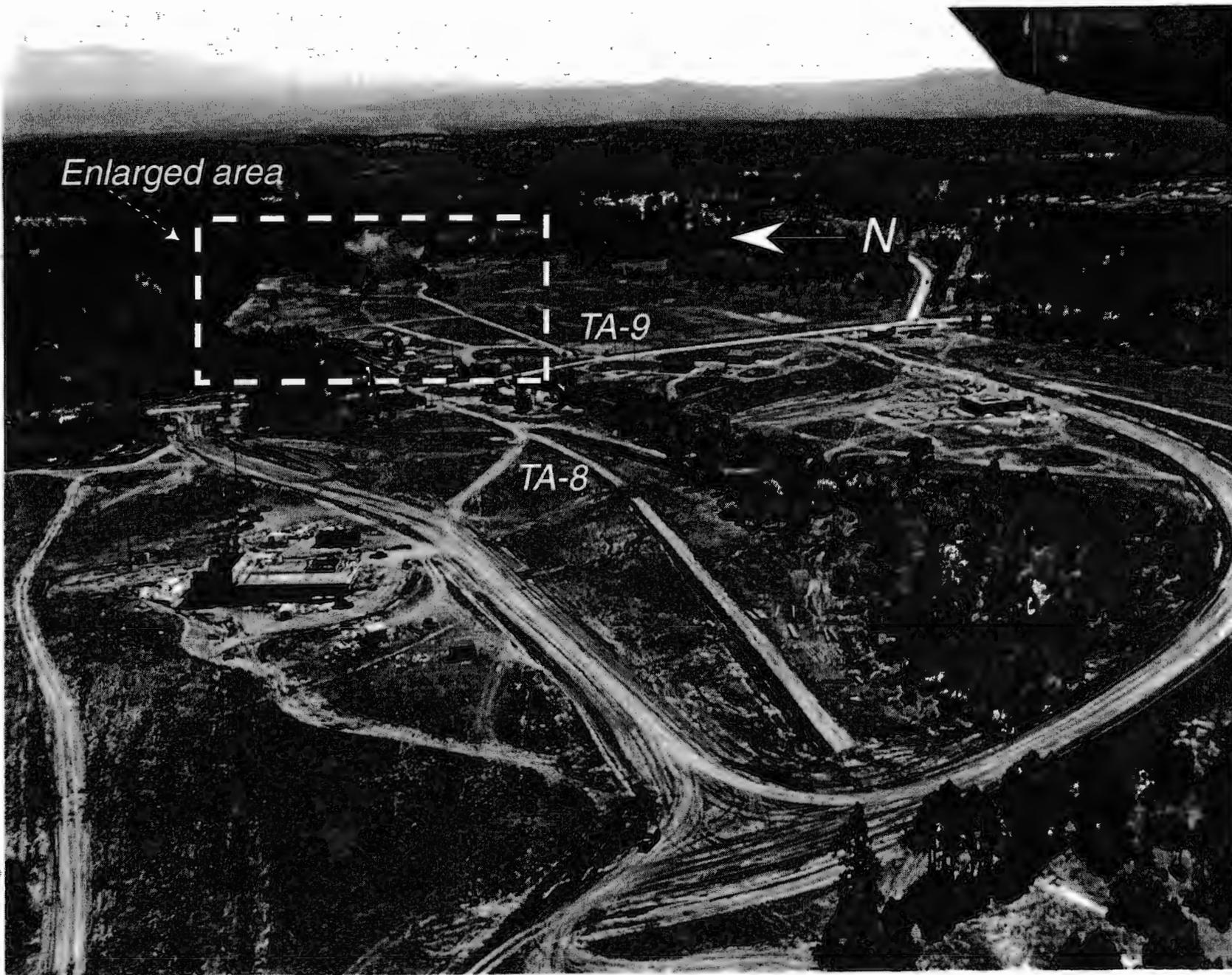


Photo 3 (ca 1949)



Photo 4 (enlarged area)

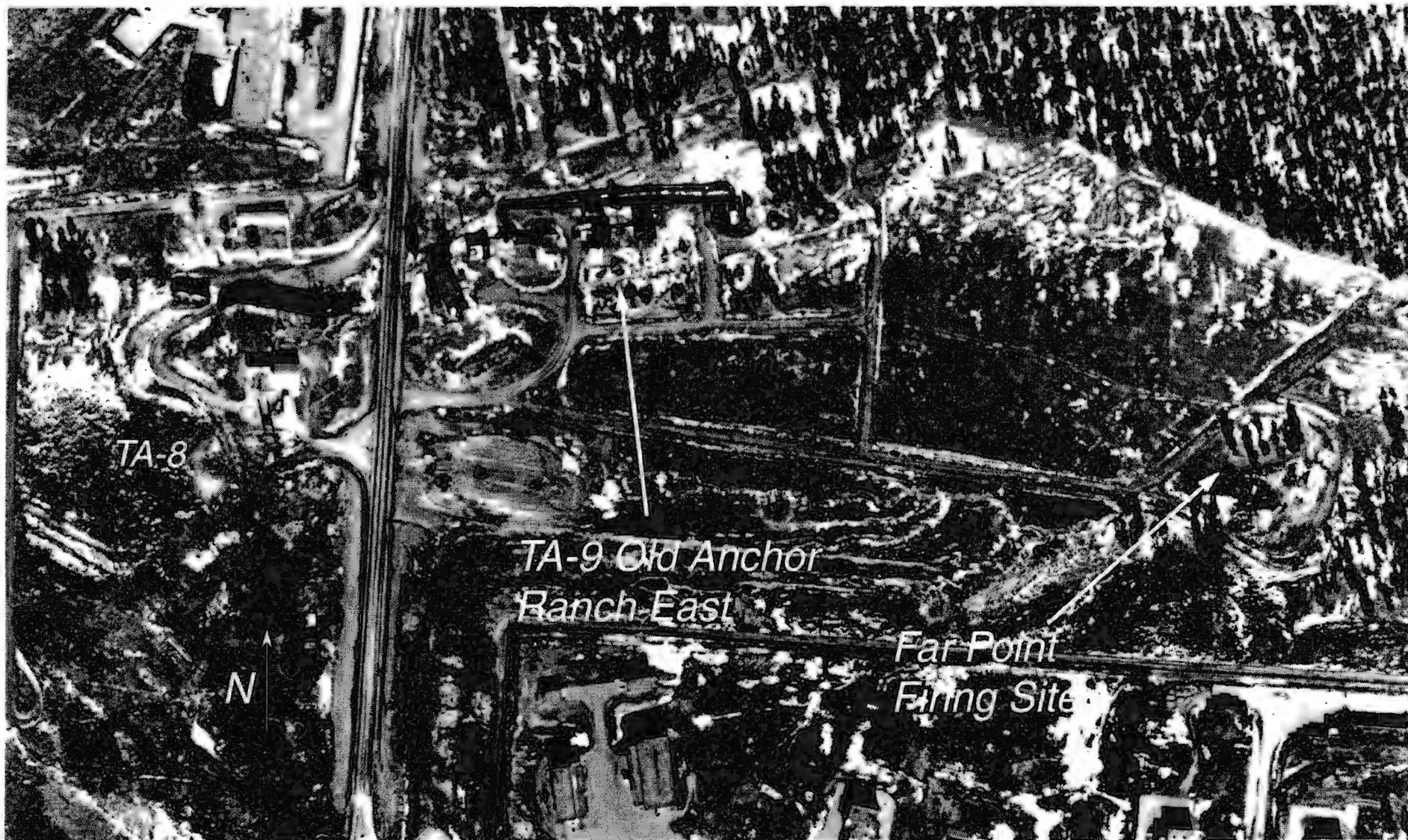


Photo 5 (1958)



Photo 6 Second small depression at TA-9

SUMMARY

LOCATION : TA-9
TYPE OF UNIT(s) : PIT
UNIT USE : TREATMENT/DISPOSAL
OPERATIONAL STATUS : DECOMMISSIONED
PERIOD OF USE : EST. 1940s - 1950s
HAZARDOUS RELEASE : UNKNOWN
RADIOACTIVE RELEASE : UNKNOWN

MATERIALS MANAGED : UNKNOWN

UNIT INFORMATION

The exact location of this unit, a burn pit, is not known. It is known that the pit was used for incineration of classified and no-longer-needed material. The pit was apparently an irregularly shaped excavation about 20' x 40' x 3' deep. The frequency of use is not known. An undated note (probably from the early 1950s) to the Engineering File lists the pit areas in TA-9. One of the pits listed is a burn pit established in June, 1949 near TA-9-15. The dimensions of the burn pit are 20' x 40' x 3'.

WASTE INFORMATION

Specific composition or final fate of the burned material is not known. Activities at the pit may have resulted in HE contamination.

RELEASE INFORMATION

The only known releases associated with the use of this unit are combustion products.

SWMU CROSS-REFERENCE LIST

<u>SWMU NUMBER</u>	<u>CEARP IDENTIFICATION NUMBER(S)</u>	<u>RFA UNIT</u>	<u>E.R. RELEASE SITE INFO.</u>	<u>ASSOCIATED STRUCTURES</u>
9-002	TA9(AE)-2-CA-1-HW/RW		Tsk 37 : 132	UNKNOWN