SECTION A. Project Title: USG #121 Test R4

SECTION B. Project Description and Purpose:

Revision 4:

The Idaho National Laboratory (INL) Wireless Test Bed (WTB) USG 121 customer has requested the use of the INL test range, and off-site areas surrounding the INL desert site to perform radio frequency (RF) testing and research over a vast range of technologies. This research and testing will examine the various operational characteristics of fixed and mobile transceivers including the use of RF collection sensors and data recording devices. Existing INL facilities and infrastructure, roads and disturbed grounds will serve as the primary work location for those involved in the USG 121 effort. INL T-roads furnish access to some test locations and the appropriate steps will be taken to coordinate with the INL Fire Marshal and Security as required. Military style vehicles/ATV's will be used for RF equipment. Helicopters/aircraft and UAV/UAS's will also carry RF equipment.

The updates in Revision 4 include the following:

- Refueling will take place at the Idaho Falls Airport with alternatives to refuel at the UAV pad (approved in Revision 2 of this ECP).
- Preparation activities for the exercise will begin April 1st and testing April 8th/9th.
- Walk along the Haul Road landing locations to the Obsidian Test pad on existing T Roads/Powerline.
- Landing locations (Table 1): Include a ¼ mile survey past these locations in each direction on the Haul road to include option to land 4th helicopter.

Figure 1, Rev 4: Obsidian Test pad (walking path)

Table 1, Rev. 4: Landing locations

Location	Lat	Long
Haul Road Landing	43°33'46.63"N	112°39'51.13"W
HLZ 1	43°33'43.15"N	112°40'7.15"W

HLZ 2	43°33'41.77"N	112°40'8.00"W
HLZ 3	43°33'42.50"N	112°40'9.40"W
HLZ 4	43°32'54.56"N	112°43'6.70"W
HLZ 5	43°32'53.17"N	112°43'8.22"W
HLZ 6	43°32'53.91"N	112°43'9.08"W
T-12 Landing	43°30'52.28"N	113° 3'54.62"W
HLZ 7	43°30'51.43"N	113° 4'7.94"W
HLZ 8	43°30'47.38"N	113° 4'7.44"W
HLZ 9	43°30'46.17"N	113° 4'2.55"W

Figure 2, Rev. 4: Haul Road Landing area

Figure 3, Rev. 4: Haul Road Landing

Revision 3:

The customer would like to add test areas down around RWMC. This will include Van Buren Blvd from US 20/26 to EBR, Adams Blvd from Van Buren to RWMC, Farragut Blvd, Road next to the Rail line out to the Scoville Junction, The fire road (T-12) on the west of RWMC out to the highway, the fire road from Farrugut back around to RWMC, T-13 out to Big Southern Butte, Highway 20/26, the haul road from CITRC to MFC. The haul road use has been approved by SSO pending coordination of shipments. Customer would like to use the T-12 Gravel Pit northwest of RWMC and a section of the haul road to land a helicopter (see maps).

Figure 1, Rev. 3: Haul Road Landing

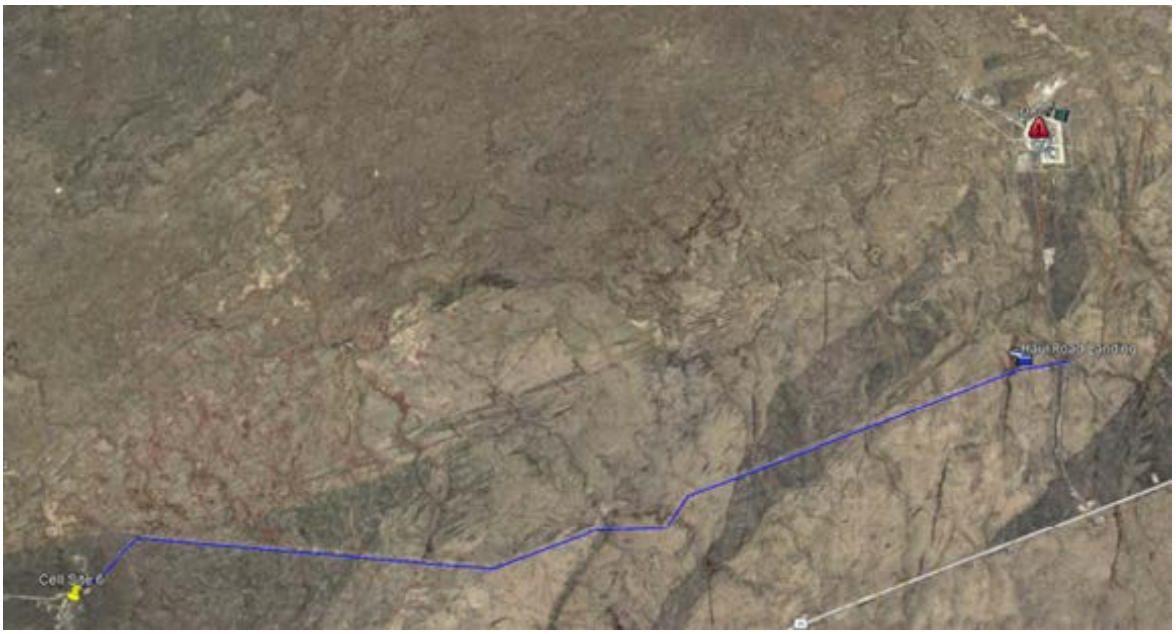


Figure 2, Rev. 3: T-12 Gravel Pit Landing

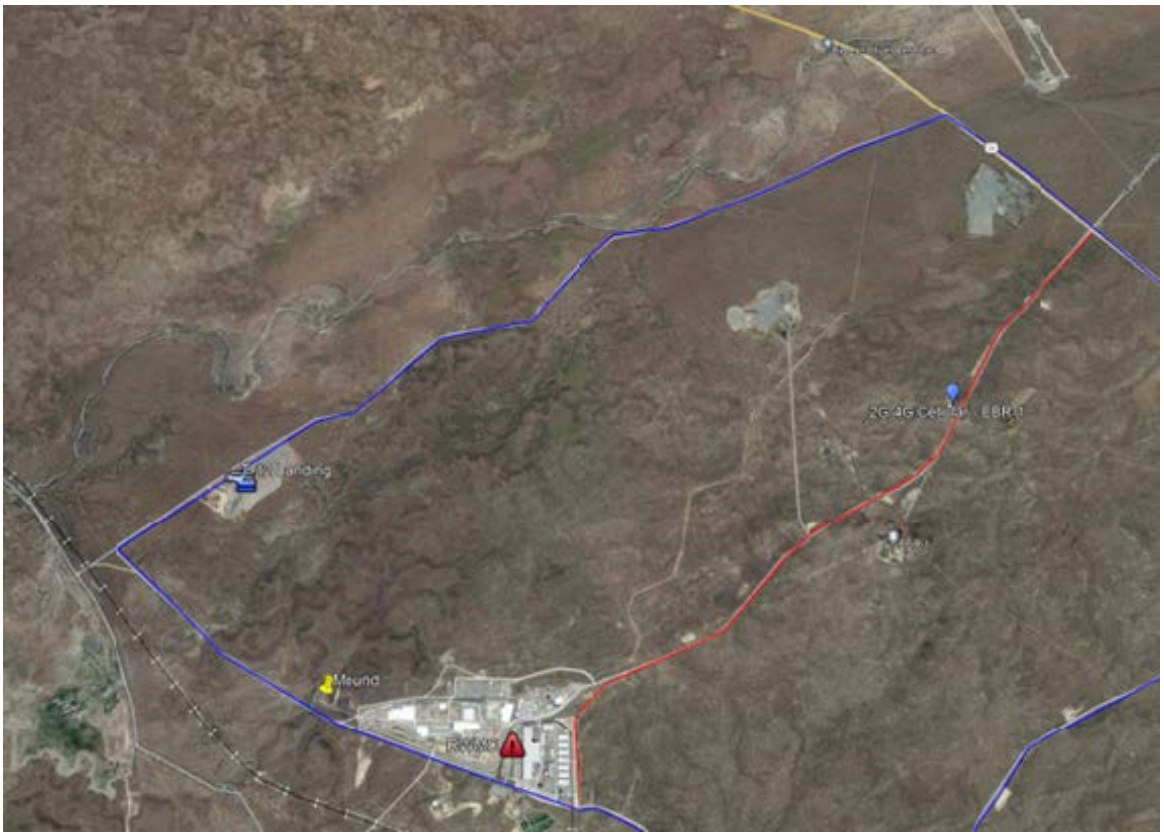


Figure 3, Rev. 3: EBR Area Roads

Figure 4, Rev. 3: Haul Road

Revision 2:

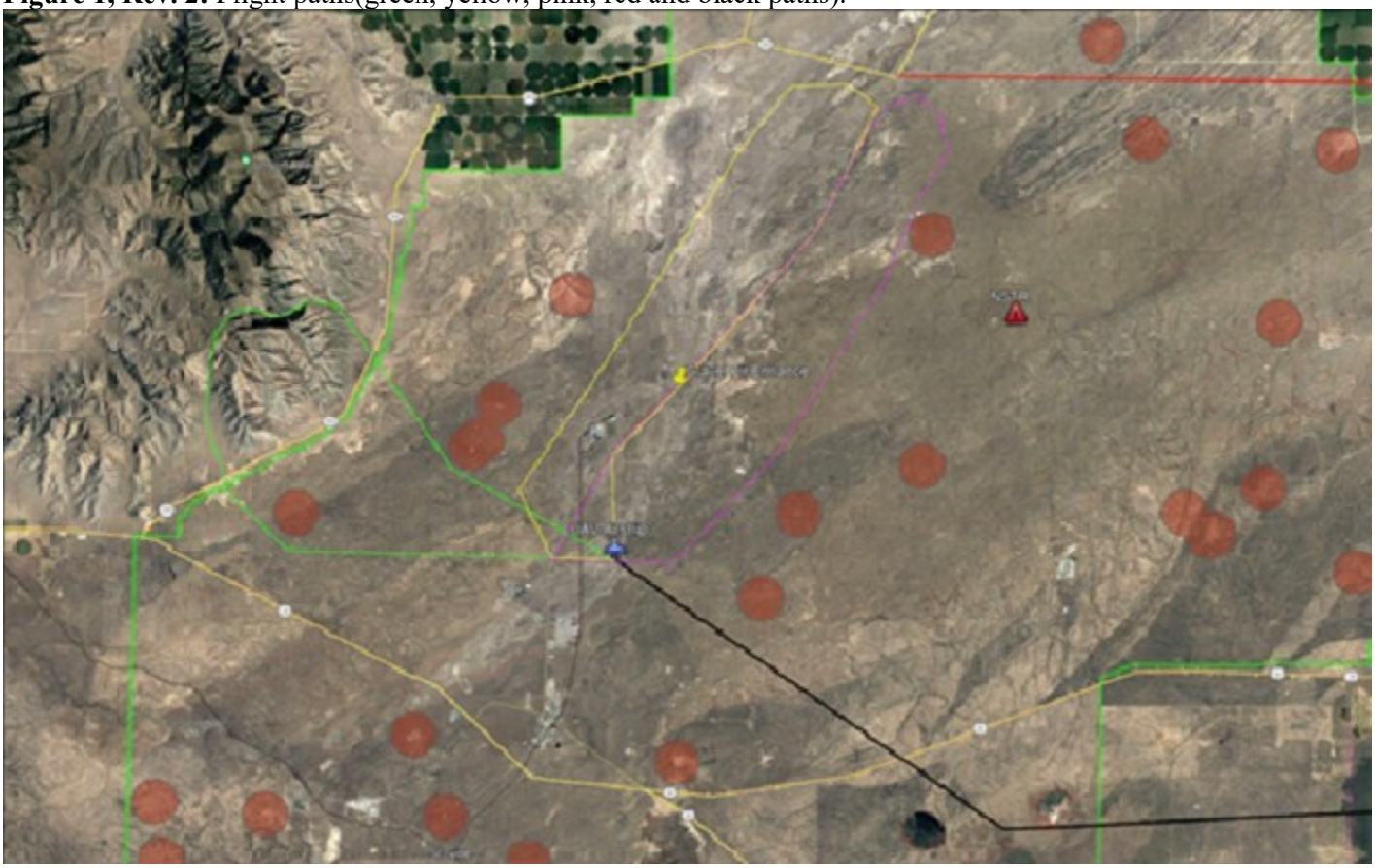
The Idaho National Laboratory (INL) Wireless Test Bed (WTB) USG 121 Customer has requested the use of the INL test range, and off- site areas surrounding the INL desert site to perform radio frequency (RF) testing and research over a vast range of

technologies. This research and testing will examine the various operational characteristics of fixed and mobile transceivers including the use of RF collection sensors and data recording devices.

Existing INL facilities and infrastructure, roads and disturbed grounds will serve as the primary work location for those involved in the USG 121 effort. INL T-roads furnish access to some test locations and the appropriate steps will be taken to coordinate with the INL Fire Marshal and Security as required. There may be a couple vehicles that will park at the edge of a T road without vegetation. The effort is not anticipated to disturb the soil or associated foliage. Existing ground rods will be used when needed. Remote and portable WTB work locations will require temporarily placed restrooms; potable or wastewater utilities are not required.

Customer equipment is in the form of Vehicle mount, rack mount, manpack or handheld transceivers/radios/servers. The associated antennas range from small omni multiband antennas to half size cellular directional antennas. GPS antennas will be used to provide timing and are smaller than a baseball. External communication will be facilitated through VSAT or commercial satellite services. Customer provided satellite dishes may range between 0.33 to 4 meters. Associated VSAT/Satellite equipment will be rack mountable and no larger than three rack space units. Military style vehicles/ATV's will be used for RF equipment. Helicopters and UAV/UAS's will also carry RF equipment.
The helicopters will use the INL UAS runway and will fly approximately 100 feet and higher, other than when landing, with an allowance for < 100’ AGL hovering over hardball/paved roads and T-roads along the flight path as noted in the figure below. This pulls some of the flights back close to Lincoln.

Figure 1, Rev. 2: Flight paths(green, yellow, pink, red and black paths).



The helicopters and UAV/UAS's will take off and land at the designated INL landing/takeoff areas, as well as designated roads. The helicopters and UAV/UAS's will avoid all LEK locations by at least 1 km radius before 9AM and 6PM. Helicopters will refuel at the UAS runway with a military BLIVIT placed in a secondary containment Berm off the pavement (See pics of similar BLIVIT and Berm in PICs 1 and 2). Fuel will be brought out in the large helicopter to top the fuel BLIVIT as needed. Fueling at the runway will save time and reduce fuel/emissions (each helicopter will reduce flight time traveling to fuel by approximately 80 minutes per day) going back and forth to the Idaho Falls Airport. These DOD flight crews work this type of refueling routinely. Helicopters will be parked at the Idaho Falls Airport

overnight to conduct maintenance activities. Alternative option for refueling includes bringing a refueling truck (with spill kit) to the UAV pad instead of spill containment and BLIVIT.

Tethered drones at <200 feet to be used in CITRC area locations.

PBF 612 will be limited on parking with trailers and equipment which will require parking off pavement in the gravel and grass areas around the facility which are already disturbed areas void of any sagebrush. The duration of testing is expected to be approximately 2 weeks.

Table 1, Rev. 2: Detailed location information.

Description	Latitude	Longitude
CFA 699	43°31'55.36"N	112°56'42.14"W
CFA 1609	43°31'52.68"N	112°56'41.89"W
PBF -613	43°32'27.45"N	112°51'43.91"W
PBF -612	43°33'17.30"N	112°52'1.06"W
PBF 637	43°32'49.03"N	112°52'4.30"W
PBF 623	43°33'1.18"N	112°51'33.85"W
PBF TR 04	43°33'2.47"N	112°51'37.41"W
Cell Site 6	43°32'0.25"N	112°49'48.81"W
Crater Butte	43°35'41.66"N	113° 8'58.28"W
UAS Runway	43°35'55.19"N	112°54'20.74"W
Howe Peak Parking Area	43°41'52.15"N	113° 3'5.20"W
Rattlesnake Ridge	43°48'4.28"N	112°51'1.99"W
HFTB	43°31'17.73"N	112°53'50.98"W
WRRTF	43°49'51.62"N	112°41'28.70"W
T3 East	43°36'12.17"N	112°53'18.18"W
T3 West	43°37'28.09"N	112°57'35.50"W
T17	43°39'9.51"N	112°50'13.17"W
17-1	43°39'16.81"N	112°49'42.03"W
17-2	43°39'16.20"N	112°49'35.40"W
17-3	43°39'10.23"N	112°47'57.37"W
17-4	43°39'43.57"N	112°47'30.50"W
17-5	43°41'6.05"N	112°46'24.08"W
T20	43°41'49.42"N	112°49'10.61"W

T20 Entrance	43°42'4.49"N	112°49'43.89"W
Gate 1 Shelters	43°30'39.81"N	112°53'45.57"W
Philmore Roadway	43°31'31.18"N	112°49'36.10"W
Highway 33	43°36'45.40"N	113° 9'19.18"W
Telegraph Ridge	43°32'24.17"N	112°35'27.34"W
Ramp at Railroad	43°37'26.11"N	112°55'26.47"W
Lincoln Blvd	43°40'0.25"N	112°52'16.89"W
8 Mile	44° 3'57.67"N	112°59'18.58"W
4 Corners	43°59'15.03"N	112°43'47.33"W
Gate 4 Parking	43°46'54.09"N	112°45'27.51"W
Antelope	43°43'20.75"N	113°32'26.51"W
Reno	44° 3'46.66"N	112°43'55.42"W
RR South	43°35'0.97"N	112°55'27.71"W
Site 8	43°35'56.23"N	112°55'17.69"W
C 1	43°43'34.69"N	112°46'35.17"W
C 2	43°36'25.04"N	112°54'18.14"W
Site 5	43°39'35.95"N	112°51'57.60"W
West Gravel Alternate	43°40'36.00"N	112°52'45.00"W
West Gravel Alternate 2	43°40'44.40"N	112°53'13.32"W
West Gravel 1	43°40'32.32"N	112°52'36.83"W
West Gravel 2	43°40'37.56"N	112°52'33.21"W
West Gravel 3	43°40'42.40"N	112°52'28.08"W
Gravel Pit Entrance	43°40'1.37"N	112°52'18.50"W
Site 4	43°42'43.96"N	112°51'4.40"W
Site 4 Alternate	43°42'50.85"N	112°51'20.12"W
Site 1	43°41'30.19"N	112°48'1.27"W
Site 7	43°45'46.70"N	112°44'48.39"W
Site 9	43°34'46.34"N	112°55'35.23"W
Site 10	43°36'11.70"N	112°56'12.87"W
7 Mile	43°38'31.18"N	112°48'58.51"W

UAS Turnoff	43°36'52.15"N	112°55'44.83"W
UAV Launch	43°31'48.45"N	112°49'44.93"W
Helicopter Land	43°40'0.54"N	112°52'16.70"W
Road Block South	43°39'39.35"N	112°52'47.79"W
Road Block North	43°40'25.40"N	112°51'46.43"W

Figure 2, Rev. 2: Detailed map location 1

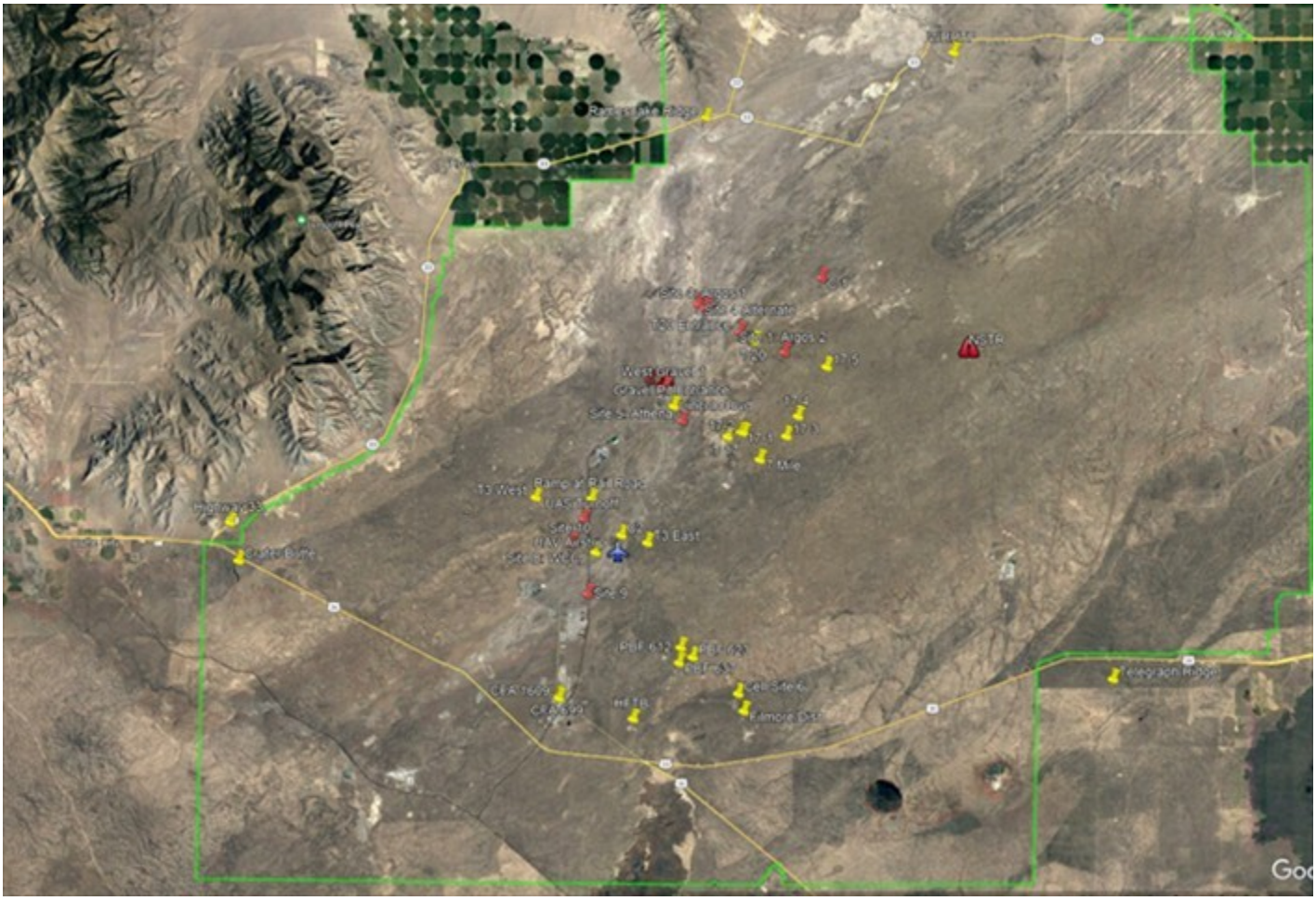


Figure 3, Rev. 2: Detailed location map 2

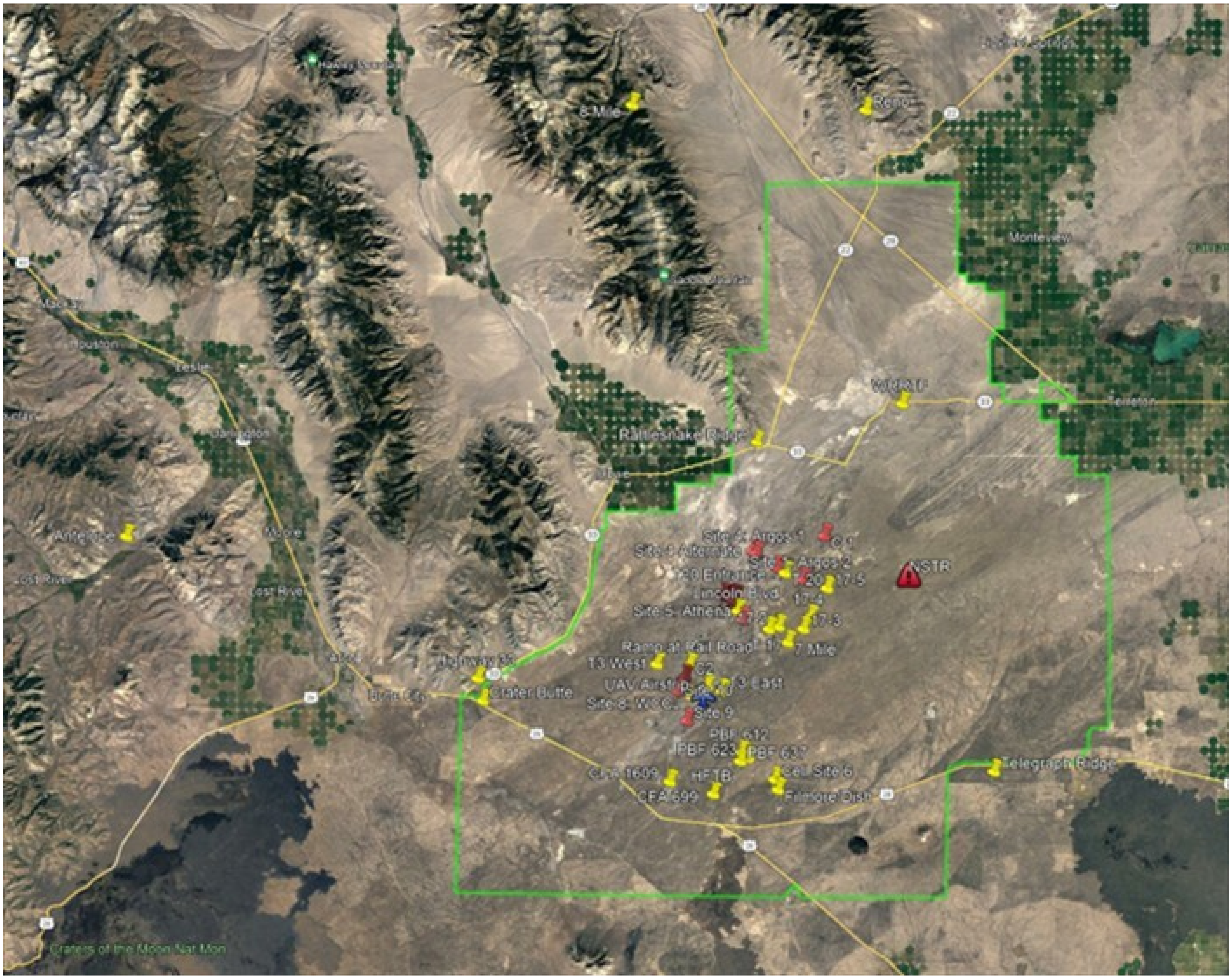


Figure 4, Rev. 2: Detailed location map 3 (1 km radius LEK locations)

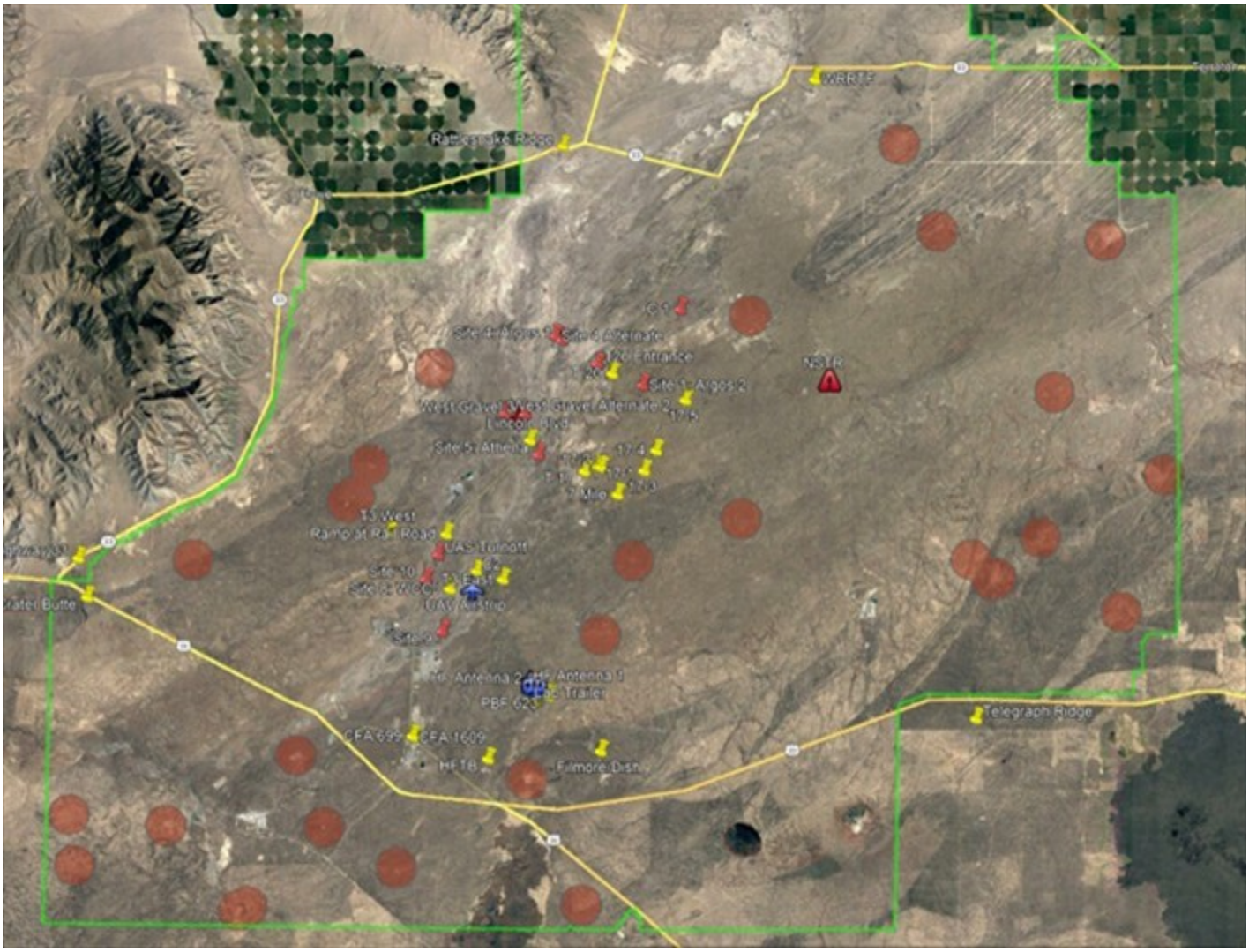

WRRTF
Telegraph Ridge
Fillmore Dsn

Figure 5, Rev. 2: Fuel BLIVIT

Figure 6, Rev. 2: Containment Berm

Revision 1:

This revision addresses the use of a C-17 aircraft as part of the testing and an additional landing location for the helicopter.

The C-17 aircraft had not been originally planned to fly at lower altitudes or to perform repeated passes over the INL site. The current plan is to fly the aircraft at 1,500 ft AGL and fly repeated passes over various areas of the INL site. The aircraft will be staged from and fueled at the Idaho Falls airport. It is currently planned for the helicopter to land on Lincoln Blvd. The proposed landing location is near the intersection of the gravel pit and Lincoln Blvd. Lincoln Blvd will be closed approximately 0.5 miles North and 0.5 Miles South of the location to keep the general population away. See Figure 1-1 below. This closure will last approximately 10 minutes on April 26th and 27th.

Figure 1, Rev. 1: Helicopter Landing Location

All previous Hold Points and Project-Specific Instructions from the original ECP remain valid.

Original ECP:

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vehicles/ATV's will be used for RF equipment. Helicopters and UAV/UAS's will also carry RF equipment. The helicopter use for UAV runway and will fly above the 1500 foot restriction other than when landing. The helicopters and UAV/UAS's will takeoff and land at the designated INL landing/takeoff areas northeast of INTEC (UAV landing strip).

INL WTB staff will assist with customer equipment and utilize existing power and HVAC within INL approved workspace. Antennas will be placed outside of the buildings and the required coax cable will be ran through existing pass-through ports. At trailer locations, including locations where the customers use their vehicle as a workspace, the customer will integrate equipment into the trailer/vehicle and use trailer/vehicle HVAC and power. Antennas will be deployed outside of the trailer/vehicles and coax will be ran though pass-through ports or windows. INL WTB work trailers require external AC and/or generator connections facilitated by INL electrician and/or site services. Deep cell batteries and/or portable generators may be used with vehicle workspace configurations. All batteries will be strapped down within the vehicle and hitch mount racks will hold/secure portable generators and fuel cans. If required and as directed by the fire marshal, a fire break up to 30-ft in radius may be mowed around field generators; no sagebrush will be mowed. No customer generated/provided excess material or waste will be left at INL. For all areas located outside the INL boundary, project personnel will coordinate with BLM to obtain all the necessary special use permits for this type of operation.

The duration of testing is expected to be approximately 2 weeks.

Figure 1, Original: Location map 1

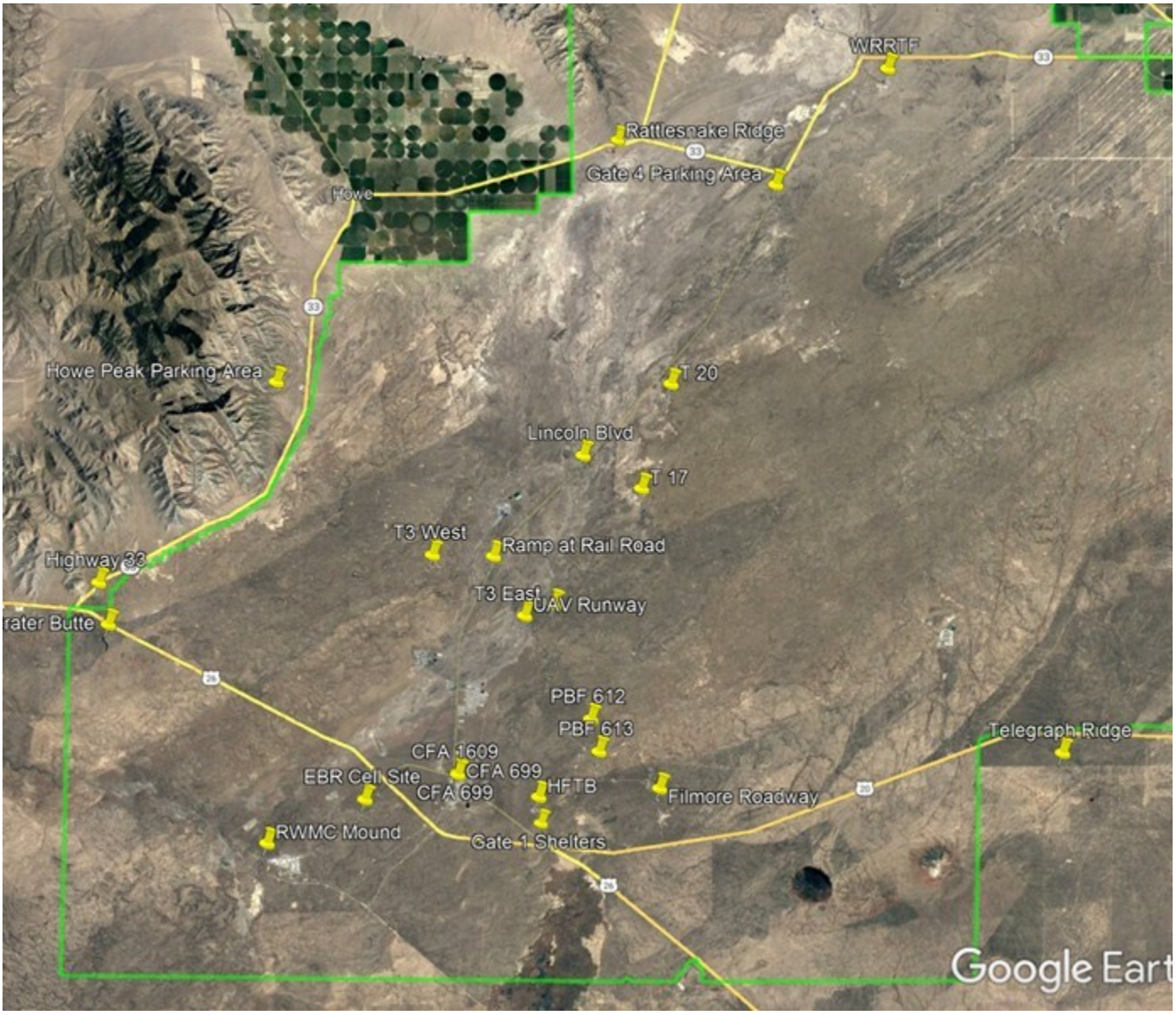

WRRTF
Rattlesnake Ridge
Gate 4 Parking Area
Howe
Howe Peak Parking Area
T 20
Lincoln Blvd
T 17
T3 West
Ramp at Rail Road
Highway 33
T3 East
UAV Runway
PBF 612
PBF 613
Telegraph Ridge
CFA 1609
CFA 699
EBR Cell Site
CFA 699
HFTB
Filmore Roadway
RWMC Mound
Gate 1 Shelters
Google Eart

Figure 2, Original: Location map 2

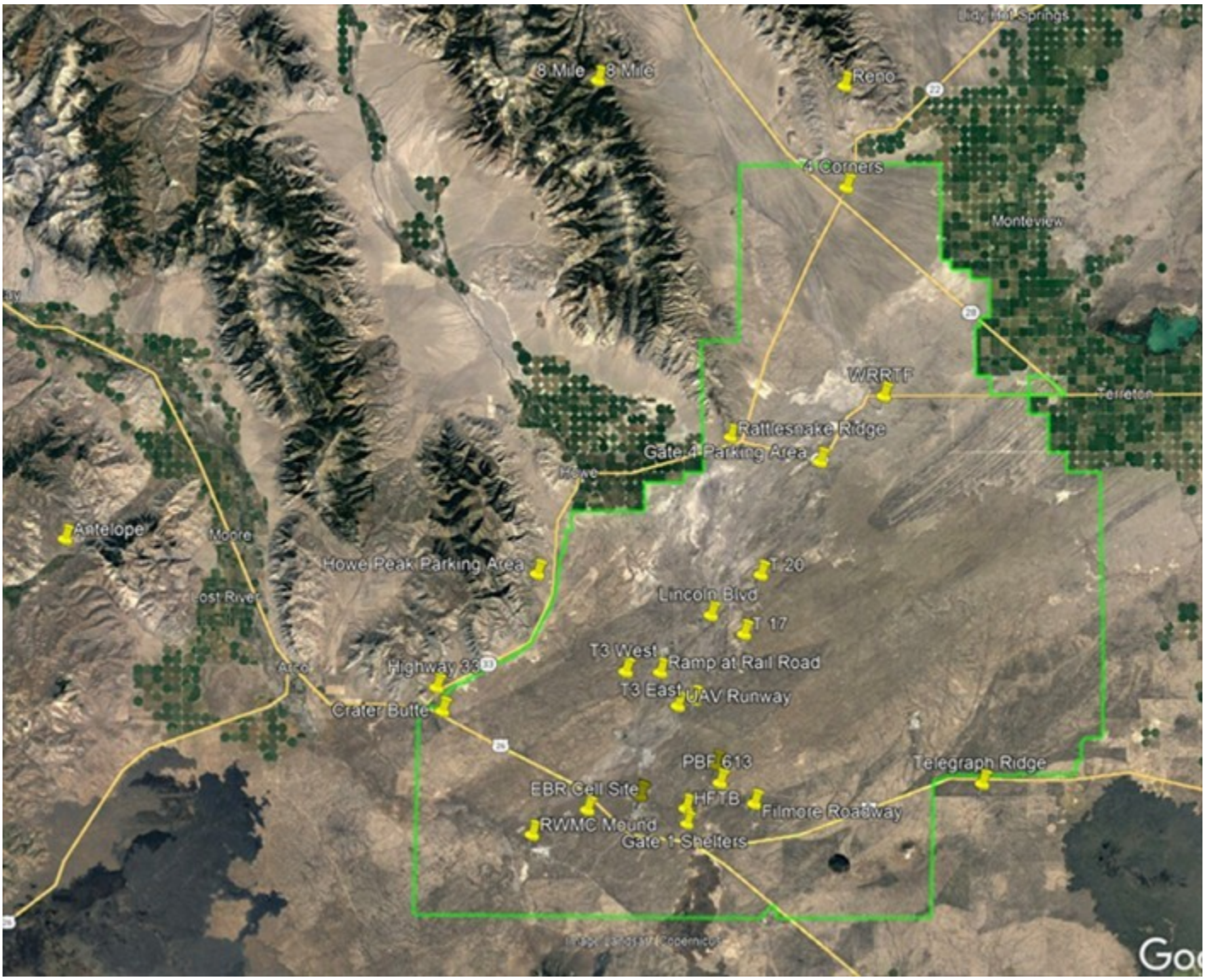
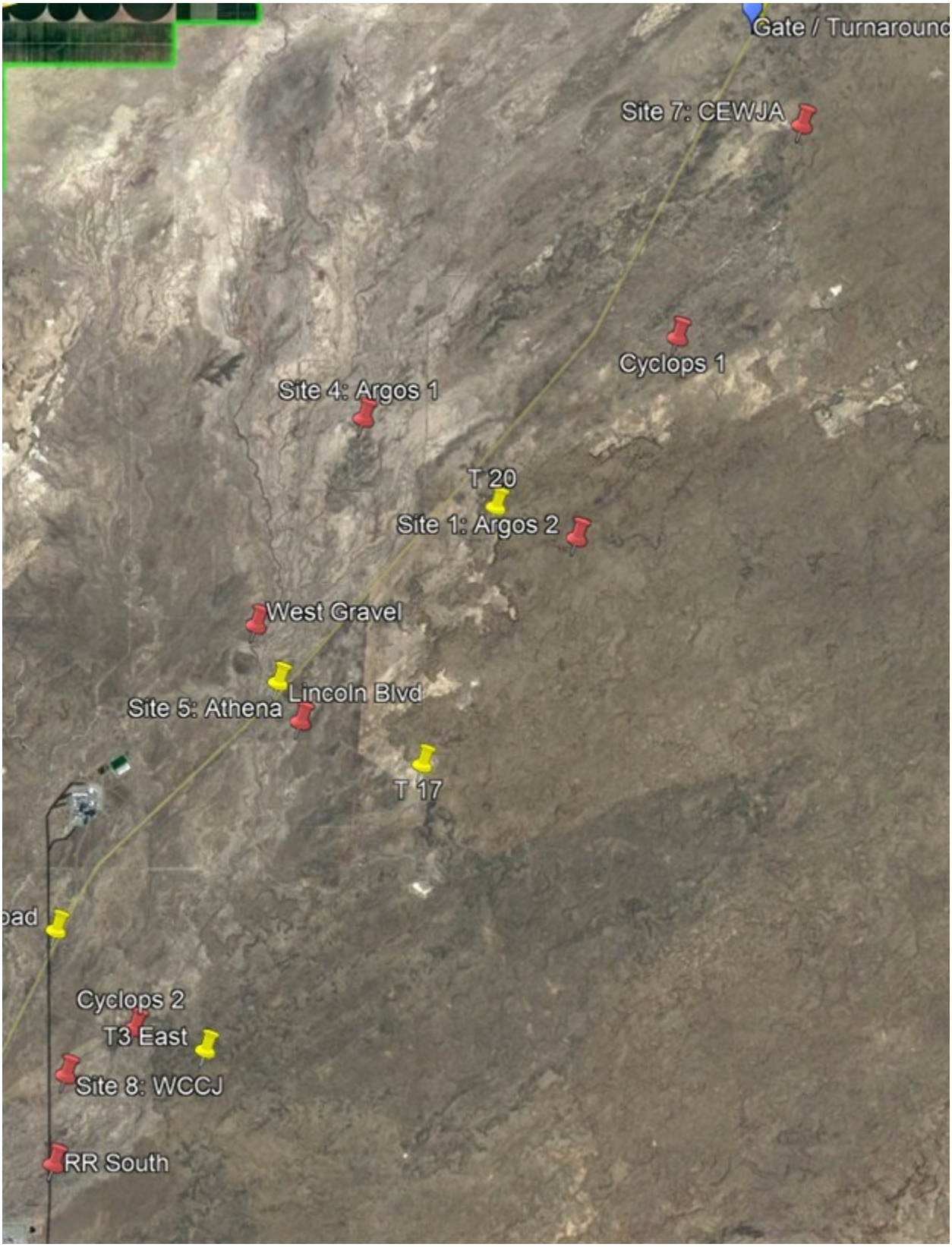


Figure 3, Original: Location map 3



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7 Mile	43°38'31.18"N	112°48'58.51"W

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Air emissions from portable electrical generators, in place less than one year. These are exempted from permitting requirements based on their temporary status. Emissions from helicopters and other aircraft which are regulated at the manufacturer. Neither source requires permitting by INL.

Discharging to Surface-, Storm-, or Ground Water

NA

Disturbing Cultural or Biological Resources

There is the potential for this work to impact vegetation and for project personnel to interact with various wildlife species. A Biological Resource Review will be arranged within two weeks prior to the initiation of any activities that might disturb soil or vegetation and again following completion of project activities. A nesting bird survey is included with the Biological Resource Review for actions occurring between April 1 - October 1 per compliance with the Migratory Bird Treaty Act.
Please refer to cultural resource review BEA-22-29 R2 in regards to this project. Please contact Reese Cook (208)526-4029 if you have questions.

Generating and Managing Waste

Activities will generate industrial waste (e.g., common office trash). All Solid Waste will be managed by WGS.

Releasing Contaminants

When chemicals are used during the project there is the potential for spills that could impact the environment (air, water, soil).

Using, Reusing, and Conserving Natural Resources

NA

Environmental Justice

According to the CEQ Climate and Economic Justice Screening Tool, the INL site as well as the Research and Education Campus in Idaho Falls, ID are located in U.S. Census tracts that are identified as disadvantaged communities. Census tracts identified as disadvantaged meet or exceed socioeconomic, environmental, health, or demographic thresholds identified by CEQ. Given that activities analyzed in this document will happen within the boundaries of existing DOE/INL land and/or facilities where there are no permanent residents, any impacts to Environmental Justice in surrounding communities are anticipated to be negligible.

SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification: Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

References: B3.2 "Aviation activities", B3.11 "Outdoor tests and experiments on materials and equipment components"

Justification: B3.2 Aviation activities for survey, monitoring, or security purposes that comply with Federal Aviation Administration regulations.

B3.11 Outdoor tests and experiments for the development, quality assurance, or reliability of materials and equipment (including, but not limited to, weapon system components) under controlled conditions. Covered actions include, but are not limited to, burn tests (such as tests of electric cable fire resistance or the combustion characteristics of fuels), impact tests (such as pneumatic ejector tests using earthen embankments or concrete slabs designated and routinely used for that purpose), or drop, puncture, water-immersion, or thermal tests. Covered actions would not involve source, special nuclear, or byproduct materials, except encapsulated sources manufactured to applicable standards that contain source, special nuclear, or byproduct materials may be used for nondestructive actions such as detector/sensor development and testing and first responder field training.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) ☐ Yes ☒ No

Approved by Robert Douglas Herzog, DOE-ID NEPA Compliance Officer on: 3/29/2024