

March 3, 2016

NRC Alaska, LLC (NRC Alaska) is currently under contract to the Alaska Department of Environmental Conservation (ADEC) for the performance of site cleanup services at the Wrangell Junkyard, commonly known as the former Byford Salvage Yard.

The purpose of the project is to provide a complete site cleanup and restoration by the removal of all contaminated soil and other hazardous materials down to a level meeting residential land use cleanup standards established by the ADEC. Strategies have been developed, designed, approved and implemented to properly manage drainage water from the site to prevent it from getting off site and into the Zimovia Straight during the project.

NRC Alaska has coordinated with the City and Borough of Wrangell to establish fencing and signage site controls on lands affected by or used in the cleanup process as well as traffic control measures and signage to be present in the area from Mile 4 and Mile 5. Please exercise caution driving in the area during cleanup operations.

The site cleanup efforts will restore the site with clean, compacted, fill following receipt of clean closure samples with support analysis data to confirm cleanup levels have been achieved. Site preparation has already begun including the installation of infrastructure to control erosion and sedimentation. Staging areas for water treatment, contaminated soil, clean backfill, and containerized waste are being delineated. The process of soil excavation, on-site treatment, packaging, transportation and disposal of impacted soil will make up the majority of the efforts and activities on the site. Dewatering activities, as necessary, sampling support, backfilling and site restoration activities will commence before demobilization of men and equipment.

Given the nature of historical activities at the site, it is anticipated that some non-hazardous solid waste debris will be removed from the site. When encountered it will be inspected, identified, characterized, and managed according to all applicable Federal, State, and Local regulations. NRC Alaska will oversee all transportation of materials and wastes from the Port of Wrangell, and ensure the proper end treatment and disposal of contaminated soil, contaminated liquids, or other hazardous or contaminated materials encountered during the excavation and site cleanup.

Questions about this project can be directed to Amber Al-Haddad Director of Public Works and Capital Projects for the City and Borough of Wrangell or Bruce Wanstall Project Manager for the Alaska Department of Environmental Conservation.



March 4, 2016

Bruce Wanstall
Environmental Program Specialist III
Alaska Department of Environmental Conservation
410 Willoughby Ave, Suite 303
PO Box 111800
Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and **NORTECH** are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit #AKR10FG27. This Project Status Update covers the initial mobilization and site preparation activities as performed between February 20, 2016 and March 3, 2014.

Project Site Activities:

NRC Alaska's Project Manager Shane O'Neill and **NORTECH** personnel Jason Ginter, Ron Pratt, Jen Stoutamore and Susan Vogt mobilized to the site between February 19 and February 21, 2016. This team performed the initial site walkthrough to familiarize all parties with the approved plans and anticipated project sequencing. Special attention was paid to SWPPP requirements and areas that were to be addressed by SWPPP Best Management Practices. For discussion convenience, we have divided the project site in to four areas based on location, see attached.

February 22:

- Project property boundaries located by R&M surveyors and **NORTECH**
- Remainder of NRC Alaska crew arrives in Wrangell, site orientation

February 23:

- Project team review of Health and Safety Plan
- Project team review of IRAP phase tasks Job Hazard Analysis
- Unloading and staging of project supplies

February 24:

- Project SWPPP elements installed at lower portion of the project area
- Surface debris consolidation from lower project area (Area A)
- Tree cutting within project area



February 25:

- Continue installation of SWPPP elements in Area A
- Continue site surface debris consolidation
- Drum identification and removal and empty drums

February 26:

- **NRC Alaska** crew off day
- **NORTECH** crew SWPPP inspection and initial site grid layout

February 27:

- Begin clearing contaminated material from lower portion of Area A

February 28:

- Continue removal of contaminated material from Area A until clean bottom reached along access road area, as verified via field screening
- Lead plates and battery debris removed from Area D and stockpiled
- SWPPP measures reinforced

February 29:

- Continue removal of contaminated material from Area A access road zone
- Build access road using six inch shot rock over geotextile once bottom is sampled and verified clean via field screening
- Battery and lead debris removal from Area D
- Tree and large vegetation removal from Area D

March 1:

- Continue removal of contaminated materials from access road area and road construction
- Continued field screening and sampling of site material being excavated so that access road is constructed on clean material
- Placement of additional SWPPP BMP elements at internal locations

March 2:

- Continue access road construction and debris removal
- Sampling and field screening of access road bed and debris stockpile

March 3:

- **NRC Alaska** crew off day
- On-site meeting and walk through with **NRC Alaska**, **NORTECH** and ADEC project managers, and City of Wrangell Public Works Director.
- **NORTECH** crew site mapping and SWPPP inspection

Project activities accomplished:

- Project Site surveyed and overall site grid established
- Surface debris removal and stockpiled
- Surface batteries and lead debris removed and stockpiled
 - Roughly 15 cubic yards of batteries and battery debris has been stockpiled
- Drum contents identified, empty drums removed to debris stockpile
- Initial SWPPP elements installed



- Access road area excavated to clean bottom as verified via field screening using the NITON XRF
- Access road constructed through Area A using six inch shot rock over geotextile
- Access road will be used to stockpile removed contaminated materials from Area A into a stockpile on Areas C&D as described in the IRAP
- Submittal of soil samples for laboratory analysis to fine tune NITON XRF correlation and closure
- After meeting with ADEC and the City of Wrangell Director of Public Works, an agreement was reached to burn woody debris from the site on the nearby Wrangell Institute property to reduce the amount of overall debris. Details will be included in the Corrective Action Plan.
- Establishment of Jason Ginter, **NORTECH** project manager as the primary point of contact for project remediation operations with ADEC.

Project challenges encountered:

- Metal, plastic and woody debris is present throughout the site soils from the surface to the glacial till (locally referred to as “blue clay” or “hardpan”) layer, ranging from 18 to 60 inches below the site ground surface, averaging a little over three feet.
 - Roughly 650-700 cubic yards of surface and excavation area debris has been removed and stockpiled so far
- Debris encountered has included buried chain link fencing; tires; batteries, both intact and broken; automotive engines and body pieces; stacks of automotive rims welded together; piping; cables; and two compressed gas cylinders, one empty and one full. The full cylinder contained nitrogen gas and was vented on site.
- The lead contaminated soils are deeper into the site soils than anticipated.
- NITON XRF readings are consistently above the established screening levels within the soils above the blue clay layer.
 - Brown muddy debris laden soil readings range from 56 – 1004 ppm lead on the NITON
 - Blue clay layer readings have ranged from 8 -38 ppm lead on the NITON
- At the lower end of Area A, four concrete pads were found, each separated by about an 18 inch gap.
 - Within the gaps were located steel piping with drainage slits cut into them. The pipes were filled with petroleum contaminated fines, and the soils in this area were visually petroleum contaminated.
 - This material has been stockpiled separately and covered while we await laboratory data.
 - Roughly 120-150 cubic yards of petroleum contaminated material is stockpiled separately
- Lead contaminated material extends off the subject property onto three of the adjoining landowners’ property.
 - Permission has been granted to remediate as necessary on the Byford property to the north of the subject area, and the Goodwin property to the south.



- A cache of petroleum drums and an acid drum, as well as a lead battery burn pile are located on the Alaska Mental Health Trust Land Office property uphill of the project area.
- ADEC is working to gain permission from the Trust Land Office to access the area.

Anticipated Project activities for the next week:

- Submittal of a draft Corrective Action Plan (CAP).
- Removal of contaminated soils and debris from Area A as discussed in the IRAP. Materials will be stockpiled on Areas C&D.
- Field screening, correlation and clearance sampling of contaminated soil removal areas during soils removal.
- Installation of additional SWPPP measures as needed.
- Construction of a rock pad for placement of the Water Treatment System within Area A.
- Installation of Water Treatment System.

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,
NORTECH

A handwritten signature in black ink, appearing to read "Jason Ginter".

Jason Ginter, PMP
Principal, Juneau Technical Manager

NRC Alaska

Ian Combs
Operations Manager

Attachments: Site Progress Photos
Site Area Map
Field Screening Map and Grid Locations
Niton Results Table



Photo 1: *Installing silt fence at lower portion of Project Area in accordance with SWPPP*



Photo 2: *Installing silt dike along Project property boundary above Byford residence*



Photo 3: *Installing silt dike along southern edge of project area*



Photo 4: *Project area surface debris*



Photo 5: Project area surface debris



Photo 6: Project area debris stockpile



Photo 7: Broken batteries and lead plates located on surface within Project Area



Photo 8: NRC personnel hand removing lead plates and battery surface debris



Photo 9: Beginning excavation of contaminated material at lower end of project area



Photo 10: Concrete slabs, with POL contaminants between slabs. Lower portion of project area



Photo 11: *POL contaminated material located lower project area.*



Photo 12: *Excavating lead contaminated material from lower project area, note amount of debris present.*

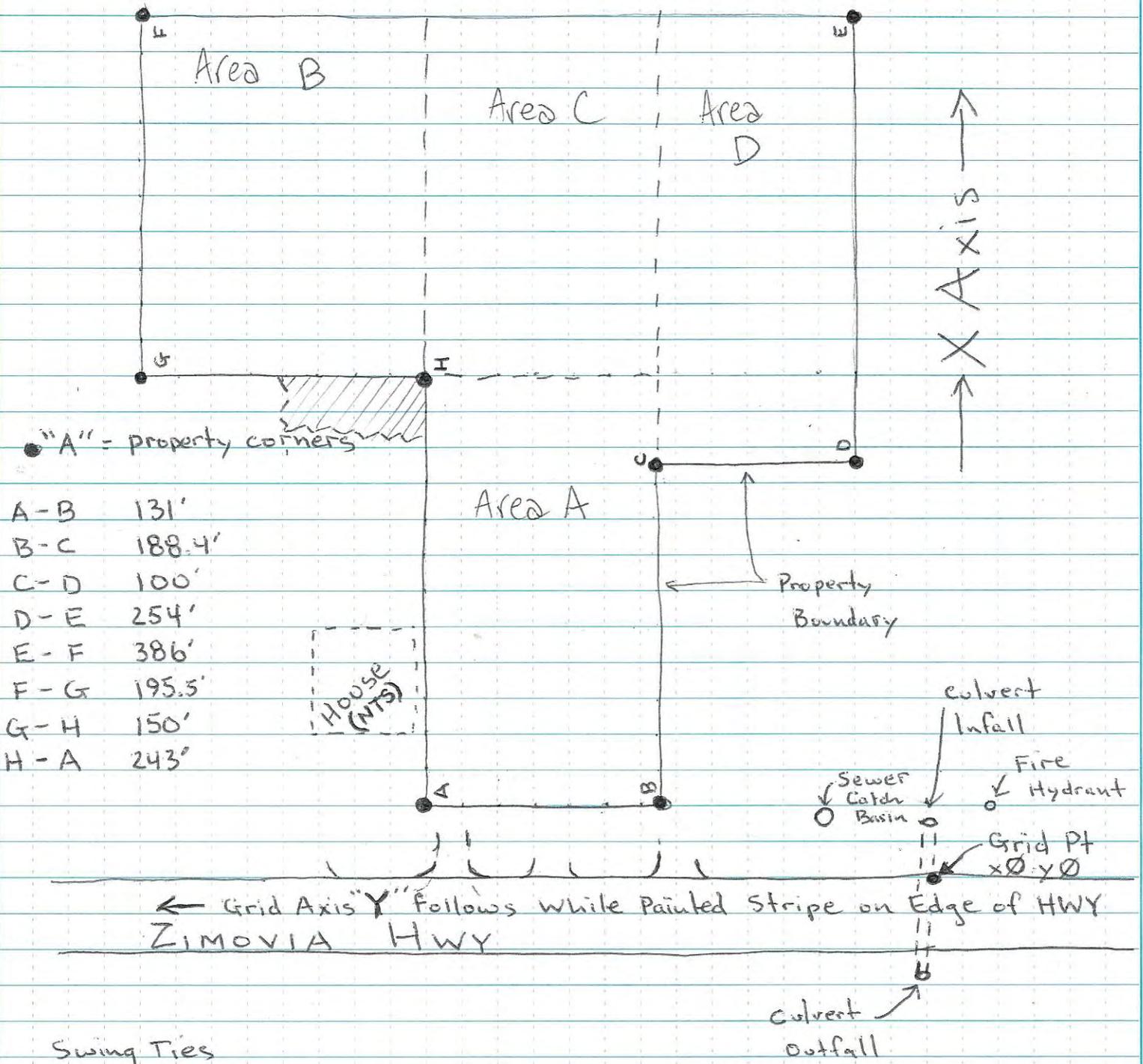


Photo 13: *Intact compressed gas cylinder found buried amongst debris while removing contaminated materials*



Photo 14: *Access road constructed over clean material within project area.*

Drum Cache → 
Approx.



- A-B 131'
- B-C 188.4'
- C-D 100'
- D-E 254'
- E-F 386'
- F-G 195.5'
- G-H 150'
- H-A 243'

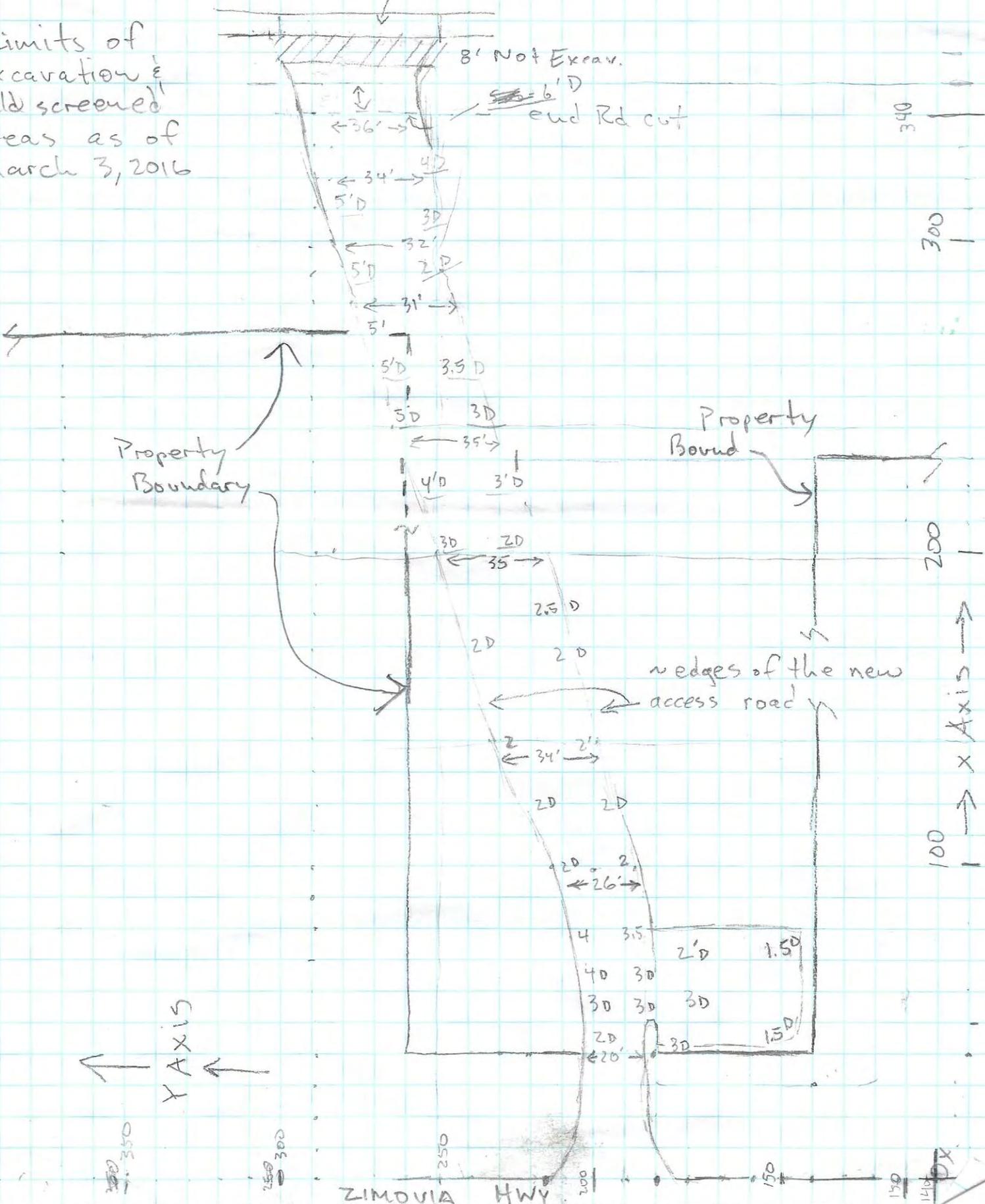
- Swing Ties
- Dist Loc to Loc
 - 35' = 0,0 to top center fire hydrant
 - 27' = 0,0 to nearest culvert infall
 - 48' = 0,0 to nearest culvert outfall
 - 56.5' = 0,0 to center of lid - sewer Catch Basin

Limits of Excavation & field screened areas as of March 3, 2016

52' wide - Div Ditch rock area

8' Not Excav.

~~5' D~~ 6' D end Rd cut



400

340

300

200

100

X Axis →

Y Axis ←

ZIMOVIA HWY

150

100

350

350

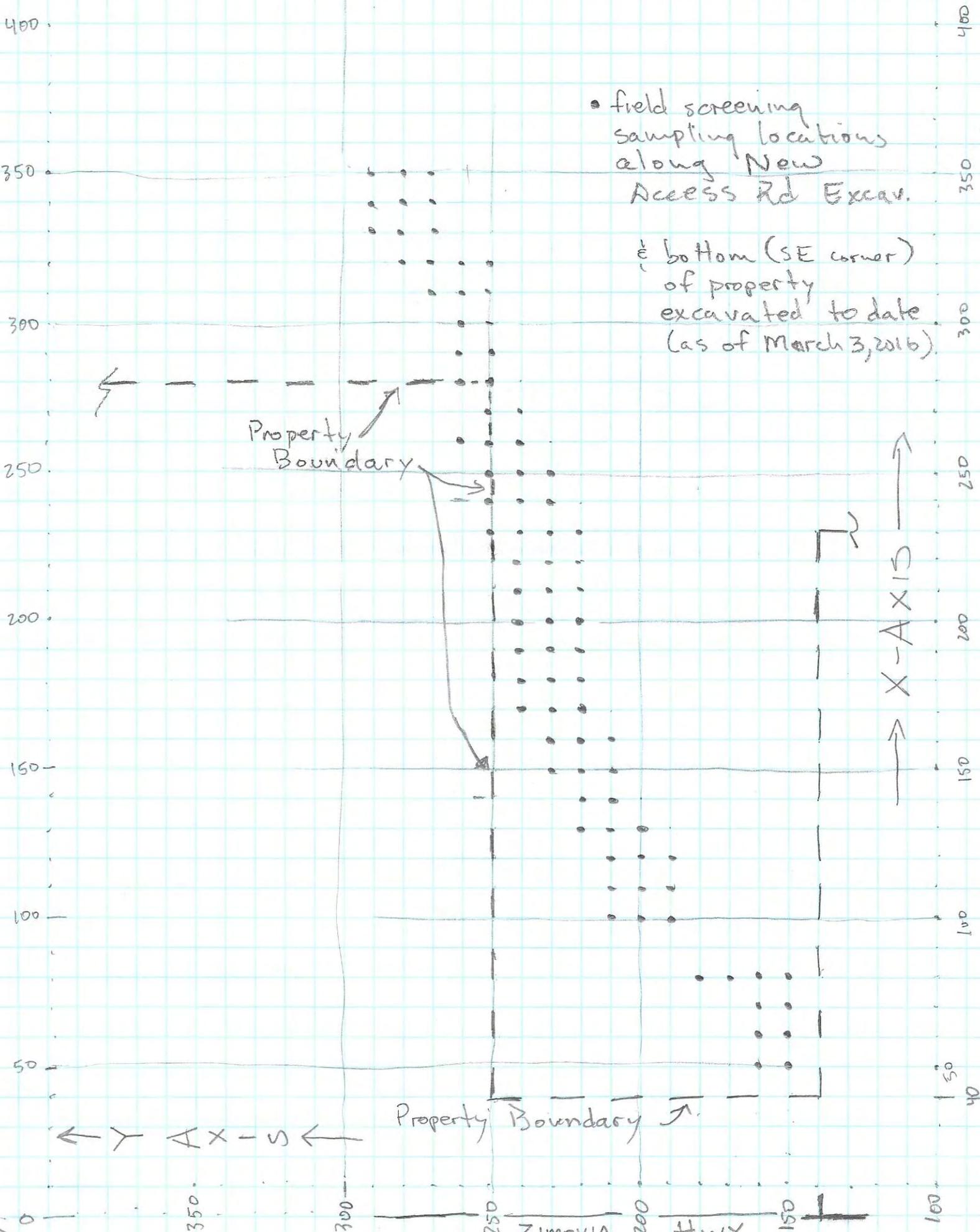
300

250

200

150

100



• field screening
sampling locations
along New
Access Rd Excav.

• bottom (SE corner)
of property
excavated to date
(as of March 3, 2016)

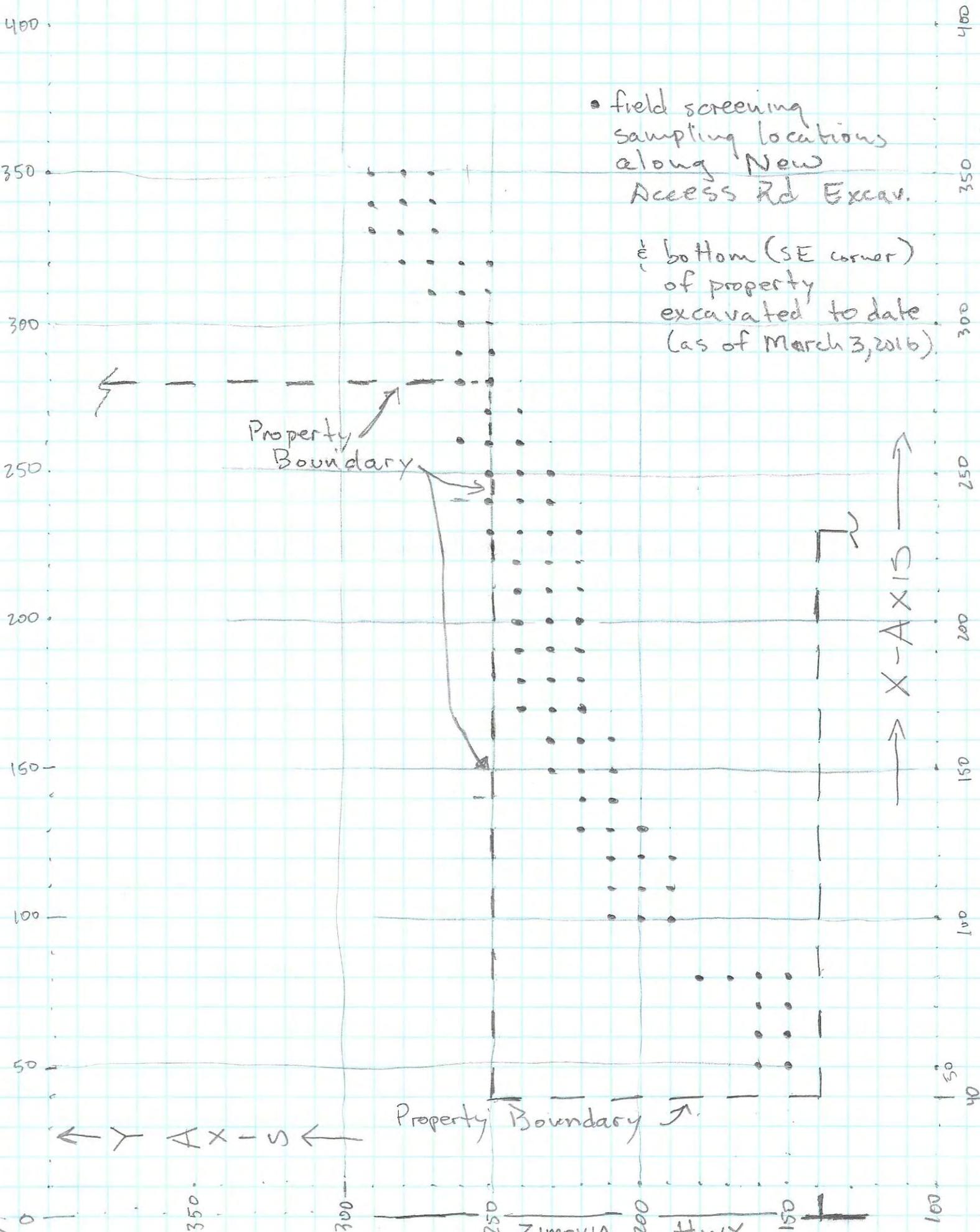
Property Boundary

Property Boundary

X-AXIS

Y-AXIS

ZIMOVIA HWY



Sample Date	Sample ID	NITON ID	Pb reading	Pb reading	Pb reading	Pb reading	Highest	Average	Notes
2/22/2016	Test 1-S	243, 244, 245	339.6	366.0	383.3	383.3	383.3	363.0	
2/22/2016	Test 1-6	247, 248, 249	279.6	367.5	279.3	279.3	367.5	308.8	
2/22/2016	Test 1-12	251, 252, 253	210.2	197.5	207.9	207.9	210.2	205.2	
2/22/2016	Test 2-S	254, 255, 256	42.9	31.4	36.7	36.7	42.9	37.0	
2/22/2016	Test 2-6	257, 258, 259	54.4	52.6	36.0	36.0	54.4	47.7	
2/22/2016	Test 2-12	260, 261, 262	14.4	48.8	32.3	32.3	48.8	31.8	
2/22/2016	Test 3-S	263, 264, 265	<LOD	<LOD	<LOD	<LOD	<LOD	#DIV/0!	
2/22/2016	Test 3-6	266, 267, 268	<LOD	<LOD	<LOD	<LOD	<LOD	#DIV/0!	
2/22/2016	Test 3-12	269, 270, 271	15.7	<LOD	<LOD	<LOD	15.7	15.7	
2/22/2016	Test 4-S	272, 273, 274	43.0	37.6	62.2	62.2	62.2	47.6	
2/22/2016	Test 4-6	275, 276, 278	202.4	158.6	168.5	168.5	202.4	176.5	
2/22/2016	Test 4-12	280, 282, 283	17.5	26.2	81.2	81.2	81.2	41.6	
2/22/2016	Test 5-S	284, 285, 286	98.1	138.9	122.9	122.9	138.9	120.0	
2/22/2016	Test 5-6	287, 289, 290	67.0	82.6	78.9	78.9	82.6	76.2	
2/22/2016	Test 5-12	291,292,293	48.0	53.2	46.7	46.7	53.2	49.3	
2/22/2016	Test 6-S	294, 295, 296	22.7	24.7	24.3	24.3	24.7	23.9	
2/22/2016	Test 6-6	297, 298, 299	10.9	12.0	11.9	11.9	12.0	11.6	
2/22/2016	Test 6-12	301, 302, 303	15.1	15.0	13.1	13.1	15.1	14.4	
2/22/2016	Test 7-S	304, 305, 306	36.2	82.8	37.9	37.9	82.8	52.3	
2/22/2016	Test 7-6	307, 308, 309	46.5	44.1	40.0	40.0	46.5	43.5	
2/22/2016	Test 7-12	310, 311, 313	42.0	37.0	51.6	51.6	51.6	43.5	
2/22/2016	Test 8-S	314, 315, 316	18.7	9.5	14.2	14.2	18.7	14.1	
2/22/2016	Test 8-6	317, 318, 319	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	
2/22/2016	Test 8-12	320, 321, 323	10.8	<LOD	10.2	10.2	10.8	10.5	
2/22/2016	Test 9-S	324, 325, 326	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	
2/22/2016	Test 9-6	329, 330, 331	<LOD	<LOD	45.5	45.5	45.5	45.5	All 2/22/2016 samples taken from
2/22/2016	Test 9-12	332, 333, 334	24.0	<LOD	<LOD	<LOD	24.0	24.0	area directly behind Byford garage
2/23/2016	Test 10-S	335, 336, 337	890.3	913.8	1028.0	1028.0	1028.0	944.0	
2/23/2016	Test 10-12	338, 339, 340	1353.0	1067.0	1249.0	1249.0	1353.0	1223.0	
2/23/2016	Test 11-S	341, 342, 343	471.9	539.0	525.9	525.9	539.0	512.3	2/23/2016 samples taken from berm
2/23/2016	Test 11-12	345, 346, 347	569.3	702.7	541.6	541.6	702.7	604.5	on property line by southern drainage
2/26/2016	Test 12	349, 351, 352	303.2	346.6	407.2	407.2	407.2	352.3	comp. debris pile soil
2/27/2016	X50Y170	355, 356, 357	21.3	13.0	9.8	9.8	21.3	14.7	field screening results for post-ex

2/27/2016	X50Y180	359, 360, 361	9.8	8.5	10.7	10.7	10.7	9.7
2/27/2016	X80Y190	362, 363, 364	11.9	9.7	15.5	15.5	15.5	12.4
2/27/2016	X80Y200	365, 366, 367	8.5	11.2	8.6	8.6	11.2	9.4
2/27/2016	X90Y190	368, 369, 370	8.8	9.3	8.9	8.9	9.3	9.0
2/27/2016	X90Y200	371, 372, 373	9.5	9.1	9.3	9.3	9.3	9.3
2/28/2016	X50Y150	375, 376, 377	8.5	9.2	8.6	8.6	9.2	8.8
2/28/2016	X60Y150	378, 379, 380	10.4	8.2	9.2	9.2	10.4	9.3
2/28/2016	X70Y150	381, 382, 384	9.1	18.1	9.8	9.8	18.1	12.3
2/28/2016	X80Y150	385, 386, 387	9.2	9.6	7.8	7.8	9.6	8.9
2/28/2016	X50Y160	388, 389, 390	9.0	11.0	9.3	9.3	11.0	9.8
2/28/2016	X60Y160	391, 393, 394	10.9	9.3	8.3	8.3	10.9	9.5
2/28/2016	X70Y160	395, 396, 397	9.2	8.7	8.5	8.5	9.2	8.8
2/28/2016	X80Y160	398, 399, 400	9	9.6	9.2	9.2	9.6	9.4
2/28/2016	X80Y170	401, 402, 403	8.5	12.3	9.5	9.5	12.3	10.1
2/28/2016	X80Y180	404, 405, 406	9.0	8.8	9.0	9.0	9.0	8.9
2/28/2016	X100Y190	407, 408, 409	9.1	9.1	8.5	8.5	9.1	8.9
2/28/2016	X100Y200	410,412, 413	10.1	9.9	9.8	9.8	10.1	9.9
2/28/2016	X100Y210	414, 415, 416	30.0	28.2	31.4	31.4	31.4	29.9
2/28/2016	X110Y190	417, 418, 419	11.6	9.0	8.6	8.6	11.6	9.7
2/28/2016	X110Y200	423, 424, 425	10.2	8.7	8.4	8.4	10.2	9.1
2/28/2016	X110Y210	426,427, 428	9.2	11.6	8.8	8.8	11.6	9.9
2/28/2016	X120Y190	430, 431, 432	16.2	9.3	9.5	9.5	16.2	11.7
2/28/2016	X120Y200	435, 436, 437	8.1	9.5	8.3	8.3	9.5	8.6
2/28/2016	X120Y210	439, 440, 441	10.0	9.8	9.7	9.7	10.0	9.8
2/28/2016	X130Y200	442, 443, 444	8.4	9.3	9.5	9.5	9.5	9.1
2/28/2016	X130Y210	446, 447, 448	9.3	9.6	9.8	9.8	9.8	9.6
2/28/2016	X130Y220	449, 451, 453	12.4	9.8	11.6	11.6	12.4	11.3
2/28/2016	X140Y210	454,457,458	8.6	9.4	8.9	8.9	9.4	9.0
2/28/2016	X140Y220	459, 460, 461	9.7	8.5	7.2	7.2	9.7	8.5
2/28/2016	X150Y210	462,463, 464	11.3	9.1	7.6	7.6	11.3	9.3
2/28/2016	X150Y220	465, 466, 467	146.2	455.5	402.0	402.0	455.5	334.6
2/28/2016	X150Y230	468, 469, 470	8.0	8.9	9.2	9.2	9.2	8.7
2/28/2016	X160Y210	476, 477, 478	8.0	9.1	8.7	8.7	9.1	8.6
2/28/2016	X160Y220	471, 474, 475	8.6	8.2	8.4	8.4	8.6	8.4

2/28/2016	X160Y230	479, 480	56.7	83.8		83.8	70.3	
2/28/2016	X150Y220B	481, 482, 483	8.4	8.6	9.6	9.6	8.9	Same location as X150Y220, but deeper
2/28/2016	X160Y230B	484, 485, 486	8.4	8.7	9.2	9.2	8.8	Same location as X160Y230, but deeper
2/29/2016	X170Y220A	491, 492, 493	48.5	50.6	73.2	73.2	57.4	Approximately 18 inch depth
2/29/2016	X170Y230A	496, 498, 501	134.2	66.0	57.5	134.2	85.9	Approximately 24 inch depth
2/29/2016	X170Y240A	504, 507	53.9	44.7	69.2	69.2	55.9	Approximately 24 inch depth
2/29/2016	X170Y220B	510,512,513	9.4	7.6	8.8	9.4	8.6	Approximately 30-36 inch depth
2/29/2016	X170Y230B	514,515,516	8.4	9.4	8.6	9.4	8.8	
2/29/2016	X170Y240B	517, 518, 520	9.1	9.3	8.6	9.3	9.0	
2/29/2016	X180Y220	521, 522, 523	9.3	9.3	8.6	9.3	9.1	
2/29/2016	X180Y230	524, 525, 526	9.2	8.0	9.1	9.2	8.8	
2/29/2016	X180Y240	527, 528, 530	9.0	7.3	12.2	12.2	9.5	
2/29/2016	X190Y240	527, 528, 530	9.0	7.3	12.2	12.2	9.5	
2/29/2016	X190Y220	531, 532, 533	8.8	8.4	8.5	8.8	8.6	
2/29/2016	X190Y230	534, 535, 536	7.9	8.4	8.2	8.4	8.2	
2/29/2016	X190Y240	537, 538, 539	9.2	8.4	8.3	9.2	8.6	
2/29/2016	X200Y220	540, 541, 542	8.4	9.9	8.7	9.9	9.0	
2/29/2016	X200Y230	543, 544, 545	8.7	9.7	9.3	9.7	9.2	
2/29/2016	X200Y240	547, 548, 549	11.5	8.6	8.3	11.5	9.5	
2/29/2016	X210Y220	550, 551, 552	8.1	14.0	8.0	14.0	10.0	Approximately 2 feet deep
2/29/2016	X210Y230	553, 554, 555	9.4	20.4	10.0	20.4	13.3	Approximately 2.5 feet deep
2/29/2016	X210Y240	556, 557, 558	10.4	8.9	8.5	10.4	9.3	Approximately 3.0 feet deep
3/1/2016	X220Y220	560, 561, 563	10.6	9.4	8.6	10.6	9.5	
3/1/2016	X220Y230	564, 565, 566	9.6	9.3	8.0	9.6	9.0	
3/1/2016	X220Y240	568, 569, 572	7.8	8.7	9.2	9.2	8.6	
3/1/2016	X230Y220	573, 574, 575	13.4	11.4	8.6	13.4	11.1	
3/1/2016	X230Y230	576, 577, 578	8.1	11.1	9.2	11.1	9.5	
3/1/2016	X230Y240	579, 580, 581	8.9	9.2	8.0	9.2	8.7	
3/1/2016	X230Y250	582, 583, 584	8.5	8.0	8.4	8.5	8.3	
3/1/2016	X240Y230	585, 586, 587	8.7	8.9	9.8	9.8	9.1	
3/1/2016	X240Y240	588, 589, 590	9.0	9.4	8.4	9.4	8.9	
3/1/2016	X240Y250	591, 592, 593	28.2	38.9	47.1	47.1	38.1	
3/1/2016	X250Y230	597, 598, 600	9.5	8.2	9.3	9.5	9.0	
3/1/2016	X250Y240	601, 602, 603	8.6	8.7	8.1	8.7	8.5	

3/1/2016	X250Y250	594, 595, 596	9.0	9.2	8.8	9.2	9.0
3/1/2016	X260Y240	604, 605, 606	9.2	9.7	8.3	9.7	9.1
3/1/2016	X260Y250	607, 609, 610	9.4	9.6	8.5	9.6	9.2
3/1/2016	X260Y260	611, 612, 613	10.0	10.2	9.6	10.2	9.9
3/1/2016	X270Y240	614, 615, 616	9.5	9.6	7.5	9.6	8.9
3/1/2016	X270Y250	617, 618, 619	9.2	17.5	8.9	17.5	11.9
3/1/2016	X240Y250B	621, 622, 623	8.1	8.8	9.0	9.0	8.6
3/2/2016	X280Y250	626, 627, 628	9.2	8.6	9.2	9.2	9.0
3/2/2016	X280Y260	629, 630, 633	7.9	12.3	9.6	12.3	9.9
3/2/2016	X290Y250	634, 635, 636	8.4	9.7	8.5	9.7	8.9
3/2/2016	X290Y260	637, 638, 639	8.0	8.3	8.7	8.7	8.3
3/2/2016	X300Y250	641, 642, 643	8.0	8.1	8.2	8.2	8.1
3/2/2016	X300Y260	644, 645, 646	7.8	8.0	8.6	8.6	8.1
3/2/2016	X310Y250	647, 648, 649	8.1	8.6	9.1	9.1	8.6
3/2/2016	X310Y260	650, 651, 652	8.8	7.9	8.6	8.8	8.4
3/2/2016	X310Y270	653, 654, 655	9.0	8.2	8.4	9.0	8.5
3/2/2016	X320Y250-1	658	423.5	423.5	423.5	423.5	1 foot depth
3/2/2016	X320Y260-2	660, 661	68.4	603.5	603.5	603.5	2 foot depth
3/2/2016	X320Y270-2	662	1004.0	1004.0	1004.0	1004.0	2 foot depth
3/2/2016	X330Y250-1	663	168.3	168.3	168.3	168.3	1 foot depth
3/2/2016	X330Y260-1	664	127.8	127.8	127.8	127.8	1 foot depth
3/2/2016	X330Y270-1	665	292.6	292.6	292.6	292.6	1 foot depth
3/2/2016	X330Y280-1	666, 667, 668	192.4	192.4	192.4	192.4	1 foot depth
3/2/2016	X320Y270	669, 671, 672	8.9	9.2	9.7	9.7	9.3
3/2/2016	X320Y280	673, 674, 675	9.2	8.9	9.1	9.2	9.1
3/2/2016	X330Y270	676, 677, 678	8.0	9.0	9.2	9.2	8.7
3/2/2016	X330Y280	679, 680, 681	8.4	8.6	9.1	9.1	8.7
3/2/2016	X330Y290	682, 683, 684	8.5	8.6	9.4	9.4	8.8
3/2/2016	X340Y270	685, 686, 687, 688	8.9	8.2	8.9	8.9	8.7
3/2/2016	X340Y280	689, 690, 691	7.9	9.7	8.3	9.7	8.6
3/2/2016	X340Y290	692, 694, 695	8.9	9.7	8.4	9.7	9.0
3/2/2016	X350Y270	696, 697, 698	9.1	9.0	10.7	10.7	9.6
3/2/2016	X350Y280	699, 700, 701	9.1	9.4	9.4	9.4	9.3
3/2/2016	X350Y290		8.9	9.0	8.8	9.0	8.9

Greater depth than original sample



March 10, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the initial mobilization and site preparation activities as performed between March 4, 2016 and March 9, 2016.

Project Site Activities:

The main focus of this past week's activities were moving contaminated material from Area A to a stockpile on Areas C and D, in preparation for eventual ECOBOND treatment and bringing in clean rock fill to construct the pad for the water treatment system on the cleared portion of Area A.

March 4:

- Contaminated soil that was stockpiled to construct access road was moved to the stockpile location at Area D
- Site survey work

March 5 through March 7:

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- Removal of contaminated soils in one foot lifts from remainder of Area A

March 8:

- **NRC Alaska** crew day off, **NRC PM** and **NORTECH** crew worked on site mapping

March 9:

- Constructed rock pad for water treatment system on Area A
- Submitted request for Change Order meeting
- Received authorization to burn woody debris at the former Wrangell Institute site

Project activities accomplished:

- Project Site surveyed and overall site grid fine tuned using GPS equipment
- Sub-surface debris removal and stockpiled
- Sub-surface batteries and lead debris removed and stockpiled
- Additional SWPPP elements installed as needed
- Eastern portion of Area A excavated to clean bottom as verified via field screening using the NITON XRF
 - Closure samples for laboratory verification were collected from excavation limits
- Pad for water treatment system constructed within Area A using six inch shot rock
- Formal authorization to burn woody debris at former Wrangell Institute site gained.
- Submittal of request for Change Order meeting with ADEC.

Project challenges encountered:

- Metal, plastic and woody debris continues to be present throughout the site soils from the surface to the glacial till (locally referred to as “blue clay” or “hardpan”) layer, ranging from 18 to 60 inches below the site ground surface
- NITON XRF readings remain consistently above the established screening levels within the soils above the blue clay layer
- Suspected asbestos transite pipe located and sampled
- Rainfall totals for the timeframe March 3 through March 9 were 1.54 inches, with two separate days at 0.4 and 0.43 inches
 - Wet conditions have created sloppy conditions within the soil stockpile area and portions of the excavation area
- Finalization of draft Corrective Action Plan delayed due to project Scope uncertainty created by quantity of contaminated materials at site

Anticipated Project activities for the next week:

- Installation of water treatment system
- Removal of contaminated material from lower portions of Areas C and D to created pad for screen plant



- Field screening and clearance sampling of contaminated soil removal areas during soils removal.
- Installation of additional SWPPP measures as needed.

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

A handwritten signature in black ink, appearing to read "Jason Ginter".

Jason Ginter, PMP

Principal, Juneau Technical Manager

NRC Alaska

Ian Combs

Operations Manager

Attachments: Site Progress Photos

Field Screening Map and Grid Locations as of March 9, 2016#

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Photo 1: Marking sample grid locations using GPS survey equipment, note POL contamination at base of survey rod.



Photo 2: Steady moderate rainfall made for sloppy site conditions. Note debris and POL sheen.



Photo 3: Soil field screening samples are collected at grid nodes every one foot lift



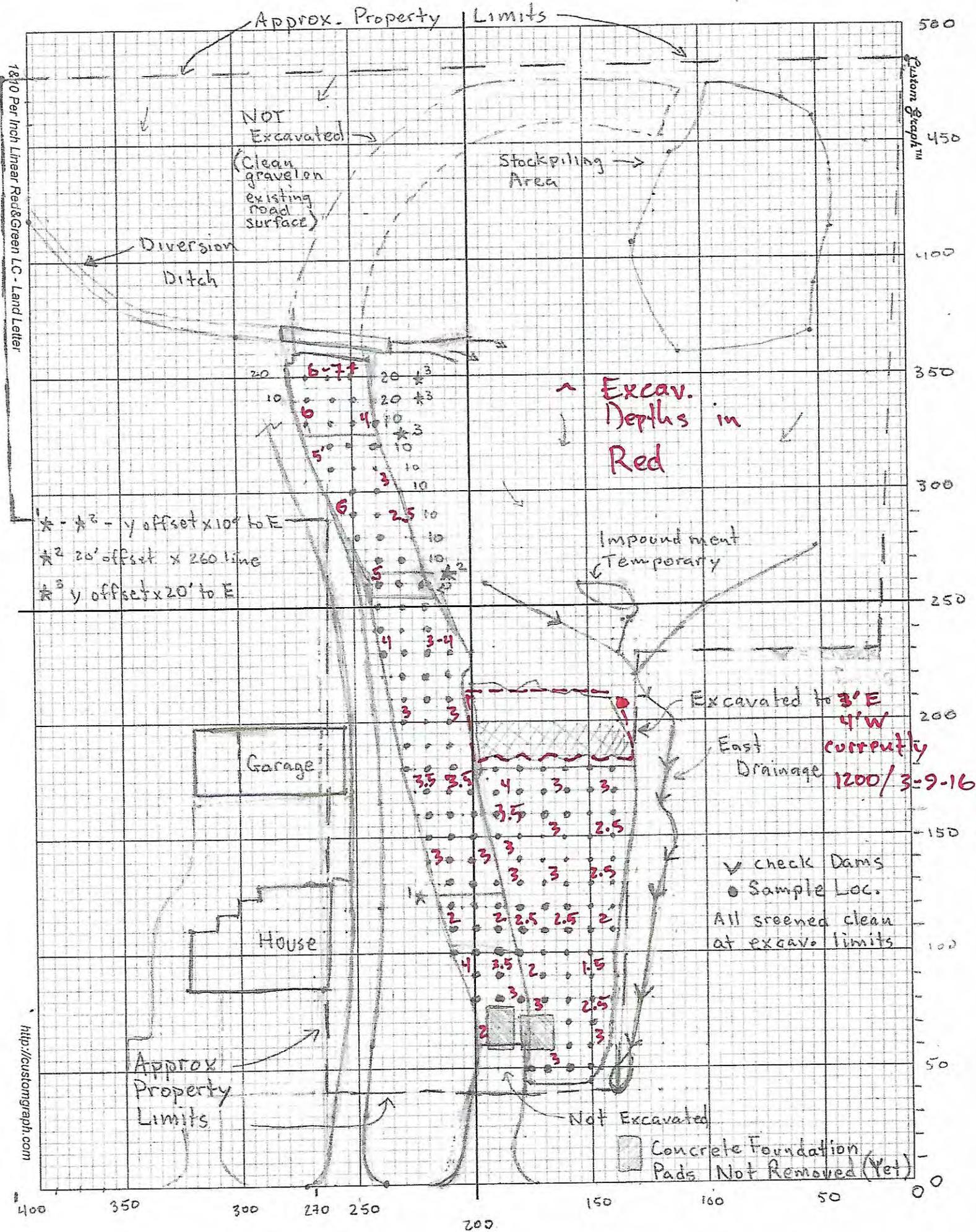
Photo 4: Suspected asbestos transite piping discovered amongst sub-surface debris



Photo 5: POL contamination, broken batteries and automotive debris upper portion of Area A



Photo 6: *Water treatment system pad has been constructed lower portion Area A*



1/8" Per Inch Linear Red & Green LC - Land Letter

http://customgraph.com



March 18, 2016

Bruce Wanstall
Environmental Program Specialist III
Alaska Department of Environmental Conservation
410 Willoughby Ave, Suite 303
PO Box 111800
Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the initial mobilization and site preparation activities as performed between March 10, 2016 and March 16, 2016.

Project Site Activities:

The main focus of this past week's activities were focused on the removal of contaminated material from Area A to a stockpile on Areas C and D, to construct a pad for the placement of the screen plant to be used to separate out oversized material.

March 10:

- Contaminated soil removal from upper portion of Area A to clear area for screen pad

March 11 & March 12:

- Contaminated soils removal from upper portion of Area A for screen pad, begin backfill for construction of screen pad

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March 13:

- Begin excavation of contaminated material at lower portion of Area B

March 14:

- Complete excavation of contaminated material at lower portion of Area B
- Rock backfill for construction of screen plant pad at upper portion of Area A
- Rock backfill for construction of turnout in lower portion of Area B
- Removal of drums from Mental Health Trust Land area
- Teleconference with ADEC regarding change order issues

March 15:

- Rock backfill for construction of screen plant pad at upper portion of Area A
- Rock backfill for construction of turnout in lower portion of Area B
- SWPPP inspection

March 16:

- Access Road maintenance
- Rock backfill for construction of screen plant pad at upper portion of Area A
- Placement of Water Treatment System Tank
- Debris Consolidation
- Verification of weight of stockpiled material

Project activities accomplished:

- Removed lead and POL contaminated material from Areas A and B to construct screen pad and truck turnout
- Area excavated to clean bottom as verified via field screening using the NITON XRF
 - Closure samples for laboratory verification were collected from excavation limits
- Sub-surface debris removal and stockpiled
- Sub-surface batteries and lead debris removed and stockpiled
- SWPPP inspection and additional SWPPP elements installed as needed
- Construction of portions of the screen pad and truck turnout
- Installation of Water Treatment System Tank
- Removal of drums from Mental Health Trust property
- Stockpile cover improved
- Verified depths of contaminated soils in all four project areas

Project challenges encountered:

- Metal, plastic and woody debris continues to be present throughout the site soils from the surface to the glacial till (locally referred to as "blue clay" or "hardpan") layer, ranging from 18 to 60 inches below the site ground surface
- NITON XRF readings remain consistently above the established screening levels within the soils above the blue clay layer
- POL contamination found along with the source: crushed buried drums of oil/tar
- Blown tire on dump truck and glitches with GPS unit caused minor project delays

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Anticipated Project activities for the next week:

- Complete installation of water treatment system
- Begin water processing
- Finish removal of contaminated material from lower portions of Areas C and D to create pad for screen plant
- Complete construction of screen plant pad
- Field screening and clearance sampling of contaminated soil removal areas during soils removal
- Prepare for ECOBOND treatment
- Installation of additional SWPPP measures as needed
- Meet with ADEC representatives on-site

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

A handwritten signature in black ink, appearing to read "Jason Ginter".

Jason Ginter, PMP

Principal, Juneau Technical Manager

NRC Alaska

A handwritten signature in blue ink, appearing to read "Ian Combs".

Ian Combs

Operations Manager

Attachments: Site Progress Photos

Field Screening Map and Grid Locations as of March 16, 2016



Photo 1: Overview of site conditions as of March 16, 2016



Photo 2: Battery collected from excavation area, note liner over clean non "blue clay" material.



Photo 3: Field screening samples are collected at grid nodes every one foot lift, Area B



Photo 4: Engine block tires and other automotive parts among sub-surface debris



Photo 5: *POL contamination associated with buried crushed drums*



Photo 6: *POL leaking from buried drum*

Approx. Property Limits

1810 Per Inch Linear Red/Green LC - Land Letter

Custom Geograph

NOT Excavated

Clean gravel on existing road surface

Diversion Ditch

Existing Rd

Capped

Stockpiling Area

Silt Dyke

Areas Excavated & Field Screened 3/10-3/14

3/10 to < screening criteria

3/11

3-12

3-13

3-14

3-14

Not finished to clean

Garage

House

Approx Property Limits

Not Excavated

Concrete Foundation Pads Not Removed (Yet)

Silt Dyke

Impoundment Temporary

Silt Fence

Excavated to 4' 5" East 3/9

check Dams Sample Loc. All screened clean at excav. limits



http://customgeograph.com



March 25, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the initial mobilization and site preparation activities as performed between March 17, 2016 and March 23, 2016.

Project Site Activities:

This past week's activities were focused on the removal of the remaining contaminated material from Area A to a stockpile on Areas C and D, to construct a pad for the placement of the screen plant to be used to separate out oversized material.

March 17:

- NRC crew day off

March 18 & March 19:

- Finish removal of contaminated soils removal from upper portion of Area A for screen pad

March 20 – March 22:

- Complete construction of shaker screen pad

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



Project activities accomplished:

- Removed lead and POL contaminated material from Area A and B to construct screen pad
- Area excavated to clean bottom as verified via field screening using the NITON XRF
 - Closure samples for laboratory verification were collected from excavation limits
- Sub-surface debris removal and stockpiled
- Sub-surface batteries and lead debris removed and stockpiled
- SWPPP inspection and additional SWPPP elements installed as needed
- Construction of remainder of the screen pad
- Preparation of formal presentation and Cost Estimate for completing project
 - Submitted to ADEC March 22, 2016

Project challenges encountered:

- Metal, plastic and woody debris continues to be present throughout the site soils from the surface to the glacial till (locally referred to as "blue clay" or "hardpan") layer, ranging from 18 to 60 inches below the site ground surface
- NITON XRF readings remain consistently above the established screening levels within the soils above the blue clay layer

Anticipated Project activities for the next week:

- Complete installation of water treatment system
- Install liner in planned water collection pond
- Begin water processing
- Prepare for ECOBOND treatment
- Separate woody debris from debris pile in preparation of planned burn at Wrangell Institute Site
- Separate smooth metal debris from debris pile for disposal at Wrangell landfill

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress Photos

NRC Alaska

Ian Combs

Operations Manager

Field Screening Map and Grid Locations as of March 22, 2016

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS

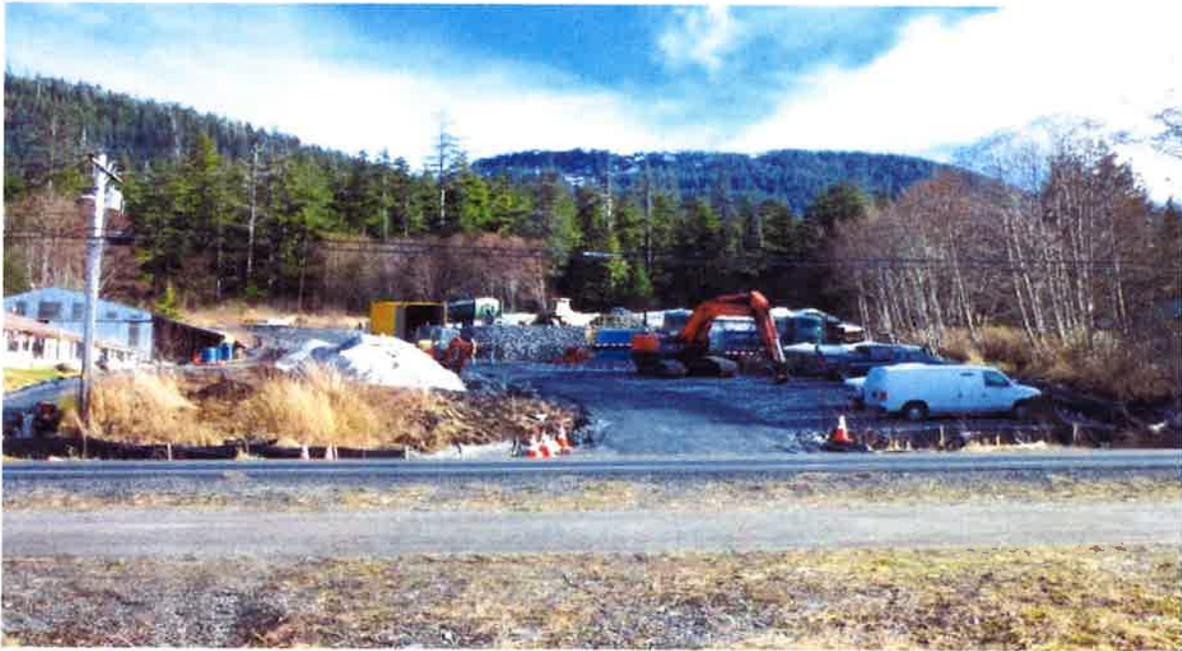


Photo 1: View of Project Site from Zimovia Highway



Photo 2: Buried auto chassis removed from upper portion of Area A.



Photo 3: Contaminated soils removed, upper portion of Area A

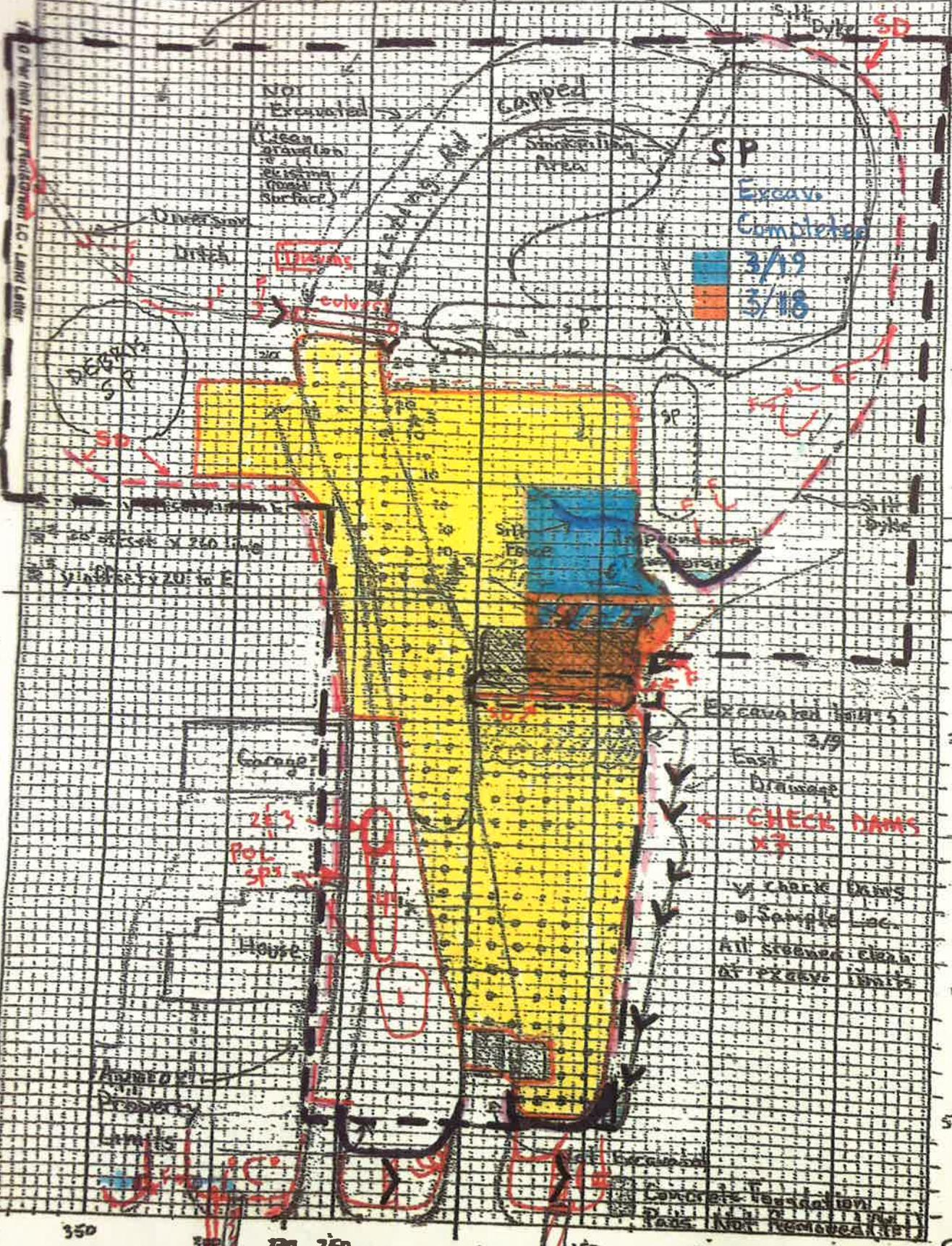


Photo 4: Rock pad construction, Area A

Approx. Property Limits

1/10 P. 101 (with Survey) Richardson, L.C. - Limit Later

1/10 P. 101 (with Survey) Richardson, L.C. - Limit Later



Settling pond →
 Note: off-site features - loc's are
 ← check dam / settling pond

http://azulacounty.naph.com



April 7, 2016

Bruce Wanstall
Environmental Program Specialist III
Alaska Department of Environmental Conservation
410 Willoughby Ave, Suite 303
PO Box 111800
Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the initial mobilization and site preparation activities as performed between March 24, 2016 and April 6, 2016.

Project Site Activities:

This past two week's activities were focused on finishing installation of the water treatment system, submittal of the change order proposal to ADEC, sorting debris, removal of clean debris to landfill, burning woody debris at the Wrangell Institute, and finalizing the Site Cleanup Plan for submittal to ADEC. The **NORTECH** crew and BW Enterprises crews have demobilized from the site, along with some of the NRC crew while awaiting the decision on the change order proposal. No soils excavation work was conducted during this time period.

March 24:

- Completed construction of settling pond
- Installed filter pods

March 25:

- Connect water treatment system plumbing

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- Prepare the Wrangell Institute site for anticipated woody debris burning

March 26:

- Separate the debris pile into three waste streams
 - Woody debris to be burned at Wrangell Institute
 - Clean, smooth metal debris to landfill
 - All other debris stored on site, to be shipped out with POL soils
- Moved woody debris to Wrangell Institute

March 27:

- Site and equipment maintenance
- **NORTECH** crew demob

March 28:

- Begin burning woody debris at the Wrangell Institute site

March 29:

- Continue woody debris burning
- Hauled clean debris to the Wrangell landfill

March 30:

- Equipment decontamination for demob
- Zeolite added to water treatment system
- Receive NTP for change order request

March 31:

- Remove ash from Wrangell Institute and add to the soil stockpile on site
- Partial demob of NRC crew

April 1:

- Site maintenance

April 2:

- SWPPP inspection
- Site maintenance

April 3 & 4:

- Site maintenance

April 5:

- Revised Site Cleanup Plan submitted to ADEC
- Site maintenance

April 6:

- Site maintenance

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Project activities accomplished:

- Completed installation of water treatment system
- Received change order NTP
- Burned woody debris at Wrangell Institute site
- Temporary crew and equipment demobilization
- Site SWPPP BMP maintenance
- Submittal of Site Cleanup Plan

Anticipated Project activities for the next week:

- Re-mobilize NRC and **NORTECH** to site
- Complete delineation of off-property contamination
- Begin excavation work on Area B and Byford property
- Prepare for ECOBOND treatment

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

NRC Alaska

Dan Strucher

Sr. Project Manager

Attachments: Site Progress Photos



Photo 1: View of Project Site from screen pad



Photo 2: Burning woody debris at Wrangell Institute site.



Photo 3: Sorted debris pile



Photo 4: Post burning, Wrangell Institute site



April 15, 2016

Bruce Wanstall
Environmental Program Specialist III
Alaska Department of Environmental Conservation
410 Willoughby Ave, Suite 303
PO Box 111800
Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the initial mobilization and site preparation activities as performed between April 6, 2016 and April 13, 2016.

Project Site Activities:

This past week's activities were focused on Site maintenance (maintenance of the stockpile cover, Site controls and SWPPP BMPs) and collecting additional field screening samples and survey data from off-property contaminated areas. **NORTECH** remobilized to site on April 8, and the NRC crew remobilized to the Site on April 12. No soils excavation work was conducted during this time period.

Project activities accomplished:

- NRC and **NORTECH** crews have remobilized to the Site
- **NORTECH** collected more field screening samples and survey data from off-property areas
- Byford property contaminated soils were excavated and added to the stockpile on April 13

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Anticipated Project activities for the next week:

- Excavate remaining contaminated material from Area B
- Construct stockpile area berms
- Construct stockpile in Area B
- Prepare for ECOBOND treatment

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

A handwritten signature in black ink, appearing to read "Jason Ginter".

Jason Ginter, PMP

Principal, Juneau Technical Manager

NRC Alaska

A handwritten signature in blue ink, appearing to read "S. Daniel Strucher".

S. Daniel Strucher

Sr. Project Manager

Attachments: Site Progress Photos

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS

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www.nrcc.com



Photo 1: Caution tape around Site perimeter



Photo 2: Excavating contaminated material on Byford property



Photo 3: Excavation area on Byford property adjacent Area B



Photo 4: Debris within contaminated material, Byford property



April 22, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site excavation activities as performed between April 14, 2016 and April 20, 2016.

Project Site Activities:

This past week's activities were focused on continuing Site remediation work through excavating contaminated materials within Area B, collecting field screening and closure samples from the excavation areas and survey data from off-property contaminated areas. Work also including preparing Area B for the construction of the lined post-treatment soil stockpile.

April 14:

- Excavation work within Area B
- Backfill of excavation area on Byford property for use as storage area

April 15:

- Backfill area on Byford property graded for use as storage area
- NRC crew received 14 containers for dirty debris, containers have been staged

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April 16:

- Loaded 13 containers with contaminated debris
- Continued excavation of contaminated material from southern property limits of Area B
 - Contamination did not extend off property in this area
- SWPPP inspection completed
 - Additional SWPPP BMP measures added in preparation of predicted storm event

April 17:

- Excavation work within Area B continued along property edge
 - Excavation of contaminated material here extended to depths of 4-5 feet
 - Contaminated material did not extend all the way to property boundary along west edge
- Pumped water from holding/settling pond into water treatment system

April 18:

- Excavation work halted due to heavy rains
- Processed water through treatment system

April 19:

- Excavation work within Area B
 - Large buried battery cache located, removed and handled
- Construction of lower stockpile berm

April 20:

- **NORTECH** survey work of excavated area limits within Area B
- Construction of drainage along west edge of Area B

Project activities accomplished:

- Continued excavation work within Area B
- Construction of rock berms and drainage measures within Area B in preparation of treated soil stockpile construction
- **NORTECH** collected field screening and laboratory samples from excavation areas
- Byford property excavation area backfilled and graded
- Begin water treatment processes

Project challenges encountered:

- Buried battery cache located within Area B
- Heavy rains on site during the week, totaling 3.1 inches, with majority falling on April 17 & 18
- Excavator maintenance issues

Anticipated Project activities for the next week:

- Excavate remaining contaminated material from Area B
- Construct stockpile area berms
- Construct stockpile in Area B
- Prepare for ECOBOND treatment



We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

A handwritten signature in black ink, appearing to read "Jason Ginter".

Jason Ginter, PMP

Principal, Juneau Technical Manager

NRC Alaska

A handwritten signature in blue ink, appearing to read "Dan Strucher".

Dan Strucher

Sr. Project Manager

Attachments: Site Progress Photos
Site Progress Map

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS

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www.nrcc.com



Photo 1: *Byford Property excavation area*



Photo 2: *Loose lead battery plates removed from buried cache in Area B*



Photo 3: Contaminated soils excavation, central portion of Area B



Photo 4: Contaminated debris has been loaded into containers for shipping and disposal

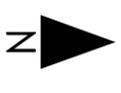
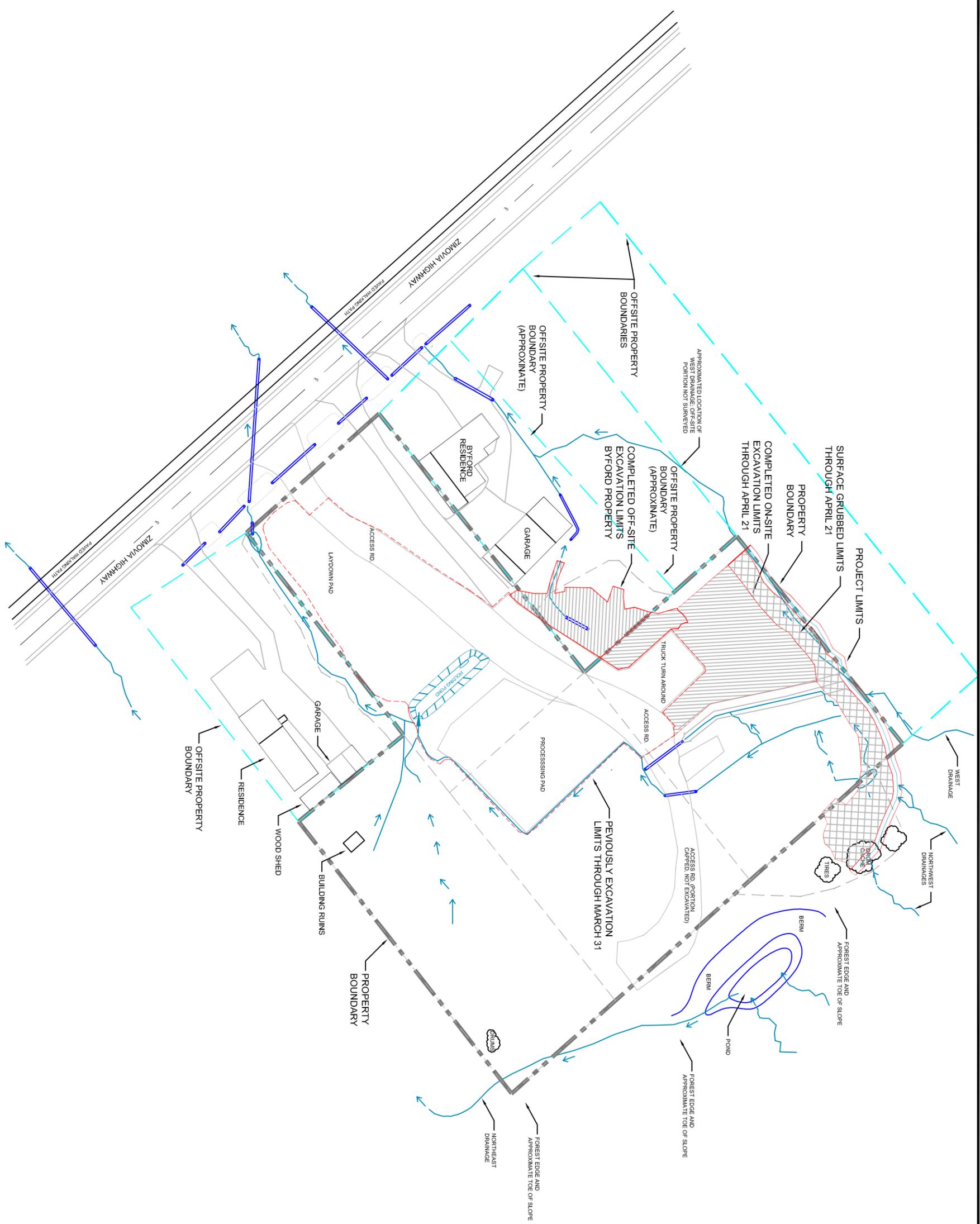


SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
 2400 College Road, Fairbanks, AK 99709 907-452-5688
 3105 Lakeshore Dr. Ste A106, Anchorage, AK 99517 907-222-2445
 5435 Shoure Dr. Ste B, Juneau, AK 99901 907-586-6013

WORKING MAP (EXCAVATION ACTIVITIES APRIL 13 THROUGH APRIL 21)
 WRANGELL JUNKYARD CLEANUP
 WRANGELL, ALASKA

DATE: 04/21/2016	SCALE: 1" = 75'
PROJ MGR: JIG	PROJECT: 15-1150
DRAWN: RJP	DWG. NO.: 151150b(xx)

FIGURE
 XX





May 4, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Interim Remedial Action Plan (IRAP) dated January 19, 2016 and approved February 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site excavation activities as performed between April 21, 2016 and April 27, 2016.

Project Site Activities:

This past week's activities were focused on continuing Site remediation work through excavating contaminated materials within Area B, collecting field screening and closure samples from the excavation areas and survey data from off-property contaminated areas. Work also including preparing Area B for the construction of the lined post-treatment soil stockpile.

April 21:

- Extend contaminated soil stockpile access road on Area D
- Install water flow control measures at west side of Area B
- Construction of treated soil stockpile berms

April 22:

- Contaminated soil and debris removal from Area B
- Continued construction of treated soil stockpile berms

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- Personnel air monitoring performed

April 23:

- Continue Area B contaminated soils and debris removal
 - Contaminated material stops about 15-20 feet short of the western property boundary
- Continued rock hauling and construction of the treated soils stockpile
- SWPPP inspection completed
 - Additional SWPPP BMP measures added

April 24-26:

- Rock hauling and treated soils stockpile construction

April 27:

- Explore possible monofill sites per ADEC request
- Area B treated soil stockpile construction
- ECOBOND treatment pad preparation

Project activities accomplished:

- Continued excavation work within Area B
- Construction of rock berms and drainage measures within Area B in preparation of treated soil stockpile construction
- **NORTECH** collected field screening and laboratory samples from excavation areas

Project challenges encountered:

- Heavy equipment breakdown and maintenance issues
- Heavy rains on site during the week, affecting soil stockpile stability

Anticipated Project activities for the next week:

- Excavate remaining contaminated material from Area B
- Install Area B treated soil stockpile bottom liners
- Prepare screen plant pad, and install screen plant
- Prepare ECOBOND treatment pad
- Begin ECOBOND treatment
- Treat and discharge collected site water through water treatment plant

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

Operations Manager

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



Photo 1: Drainage ditch, west excavation edge, Area B



Photo 2: Contaminated soils excavation, Area B



Photo 3: *Treated soils stockpile construction, Area B*



Photo 4: *Aerial view of site as of April 24*



May 9, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

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Project Site Activities:

This past week's activities were focused on continuing Site remediation work through excavating contaminated materials within Area B, collecting field screening and closure samples from the excavation areas and survey data from off-property contaminated areas. Work on the lower Area B stockpile area has been completed, the screen plant has been moved into place, and limited treatment of lead contaminated soils using the ECOBOND® process has started.

April 28:

- Lower stockpile cell on Area B completed
- Containers moved from AML yard to the designated off-site storage area
- Contaminated soil and debris removal at upper portion of Area B
- Contaminated soil stockpile stabilization and re-contouring in preparation of predicted rain event

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- Collected water processed through water treatment system

April 29:

- Contaminated soil and debris removal from upper edge of Area B

April 30:

- Backfill excavation areas at upper portion of Area B
- Stockpile maintenance due to heavy rain and wind
- Water treated through treatment system
- Screen plant mobilized to the Site

May 1:

- Crew day off

May 2:

- Lined screen pad area and add rock
 - Constructed pad for feed excavator to sit on
- ADEC led meeting with Wrangell Assembly
- Explore monofill sites with ADEC

May 3:

- ECOBOND treatment of 160 cubic yard POL soil stockpile
- Excavation of contaminated soil and debris from Area B up to property boundary with Mental Health Trust property
 - Debris evident in sidewalls indicates debris throughout subsurface soils on Mental Health Trust property

May 4:

- Begin excavation of contaminated material and debris from Mental Health Trust property
 - Contaminated material on Mental Health Trust property also extends to glacial till layer
- Backfill of excavated areas on upper Area B
- Debris stockpile removal
- Mobilize ECOBOND to Site

Project activities accomplished:

- Completed excavation work within Area B
- Completed construction of rock berms and drainage measures within Area B in preparation of treated soil stockpile construction
- **NORTECH** collected field screening and laboratory samples from excavation areas
- Screen plant pad constructed
- Screen plant mobilized to Site

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



- Collected site water processed through water treatment system
- Began ECOBOND treatment
 - Initial treatment was conducted on the 160 cubic yard POL/lead contaminated stockpile
 - This was the only material treated during this time period

Project challenges encountered:

- Heavy equipment breakdown and maintenance issues
- Heavy rains on site during the week, rainfall total for period covered by this project status update was 3.95 inches, with 3.55 inches from 4/30 – 5/2
 - Water treatment system capacity is strained due to quantity
 - Water treatment system consists of 16,000 gallon collection and settling pond, 20,000 gallon weir tank (CAP refers to 10,000 gallon capacity), filtration unit and 20,000 gallon holding tank (CAP also refers to 10,000 gallon capacity for this container)
 - Water discharged from treatment system was to be sampled per batch (CAP refers to 10,000 gallon batch, actual batch size is 20,000)
 - Batches cannot be held until lab samples are received
 - Batches will continue to be sampled, with frequency changed to weekly basis
 - As of May 4, a total 53,868 gallons of water from the site have been processed through the treatment system and discharged
 - All treated water is discharged to the rock covered ground surface at a rate of 52 gpm
- Water passed through the treatment system is sent to SGS laboratories for lead analysis
- Water grab sample results are listed in the following table

Sample ID	Lead (in mg/L)
CZ-IMP-1*	0.576
CZ-IMP-2*	0.527
CZ-STR*	2.640
CZ-20160420-W1	0.008
CZ-20160428-W2	0.048

*These samples were collected from the inlet streams leading to the collection and sedimentation pond, pre-treatment



Anticipated Project activities for the next week:

- Excavate remaining contaminated material from Mental Health Trust property
- Screen and ECOBOND process stockpiled contaminated soils
- Treat and discharge collected site water through water treatment plant

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

A handwritten signature in black ink, appearing to read "Jason Ginter".

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

Site Progress Map

NRC Alaska

Dan Strucher

Operations Manager



Photo 1: Aerial overview of project Site, May 4, 2016



Photo 2: Area B, treated soil stockpile cell, note rock to property limits



Photo 3: Screen plant mobilized to the Site



Photo 4: Collection and sedimentation pond

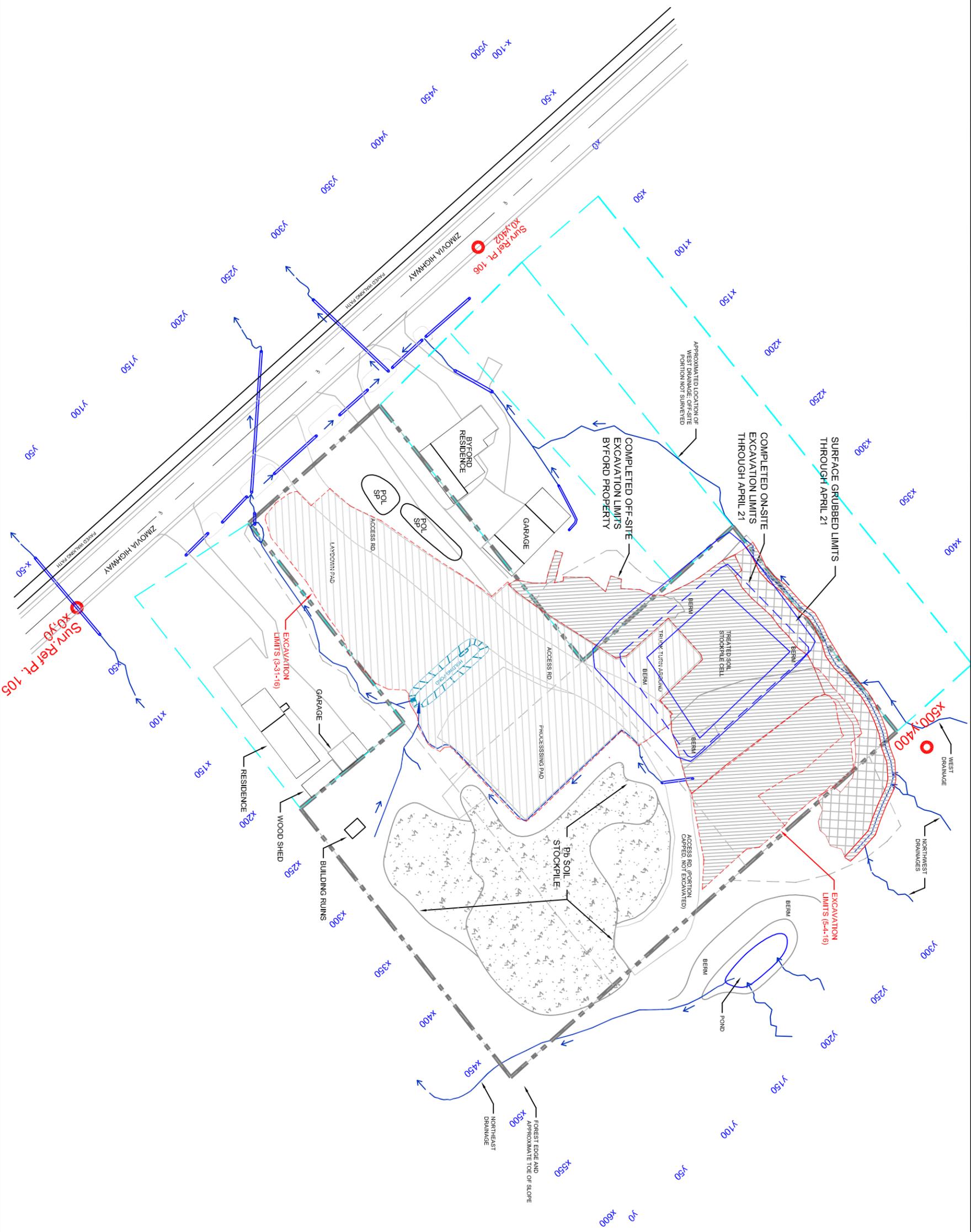


SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
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 3105 Lakeshore Dr. Ste A106, Anchorage, AK 99517 907-222-2445
 5435 Shoreline Dr. Ste B, Juneau, AK 99901 907-586-6313

WORKING MAP (EXCAVATION COMPLETED THROUGH MAY 4, 2016)
 WRANGELL JUNKYARD CLEANUP
 WRANGELL, ALASKA

DATE: 05/04/2016	SCALE: 1" = 75'
PROJ MGR: JIG	PROJECT: 15-1150
DRAWN: RJP	DWG. NO.: 151150b(xx)

FIGURE
 XX



MEMORANDUM

State of Alaska

Department of Environmental Conservation
Division of Spill Prevention and Response- Contaminated Sites

TO: Kristin Ryan, Division Director
Jennifer Roberts, Program Manager

DATE: May 3, 2016

THRU:

FILE NO:

PHONE NO: 465-5076

FROM:  Sally Schlichting, SE Unit Manager

SUBJECT: Proposed Monofill Site for Wrangell Junkyard Lead Contaminated Soil

On Monday May 2, 2016, I traveled to Wrangell to provide information to the City Assembly about the suitability of a City owned rock pit located on Spur Road, for the purposes of constructing a monofill to dispose of the stabilized, lead-contaminated soil generated by the DEC-led cleanup at the Wrangell Junkyard site. I also provided information about the general siting criteria, long-term maintenance requirements, and information about the bioavailability of lead in the stabilized soil. In addition, I visited several other candidate sites, and was accompanied by City staff and NRC staff and subcontractors. The four best locations are discussed below, with Site #4 being our preferred location.

It is my recommendation that you propose site #4 to the Division of Mining Lands, and Water as a location for disposal of the Wrangell Junkyard lead contaminated soil. Thank you for your consideration.



Site #1 Spur Road Rock Pit

The City's Spur Road Rock Pit site has a number of negatives that do not make it an ideal site. The pit size is fairly small, which may require the contaminated material to be piled as much as 30 feet high. The exposed face of the monofill must have a 3:1 graded slope which further limits available space. The pit is full of debris and wood waste that would need to be cleared out. The access road to the site would need to be rebuilt and possibly re-aligned. The site itself is in an area that is heavily used by recreators and residents for off-road vehicles, dog-walking, berry-picking, and other activities. It is very close to the road and therefore highly visible. It is also in an area where future residential development may occur, and along a road currently used to access private properties. Trucking material to this site would require driving through town. The City Assembly is not enthusiastic about this site for these reasons.



Site #2 City of Wrangell Running Track on Sales Street

Although not on the City's meeting agenda, the closed wood waste fill site located next to the school was discussed. This site is currently underused, as a large vacant lot known as the "running track" that serves a variety of unmonitored activities. It was never completely finished to serve as a recreational facility. It is large, flat and square and is very accessible from the road system. Its attractiveness is its size, such that material from the Junkyard would need only be piled to perhaps two feet in depth, not allowing for additional cover material of another two feet. However, it is located in downtown Wrangell and is adjacent to schools and is popular for recreational activities. The City Assembly members oppose this option due to concern about the long-term stability of the lead in the soil, and maintenance and monitoring requirements they might be burdened with, and concerns about health risks to children.



Site #3 Closed DNR Rock Pit, #1 on Pat's Creek Road

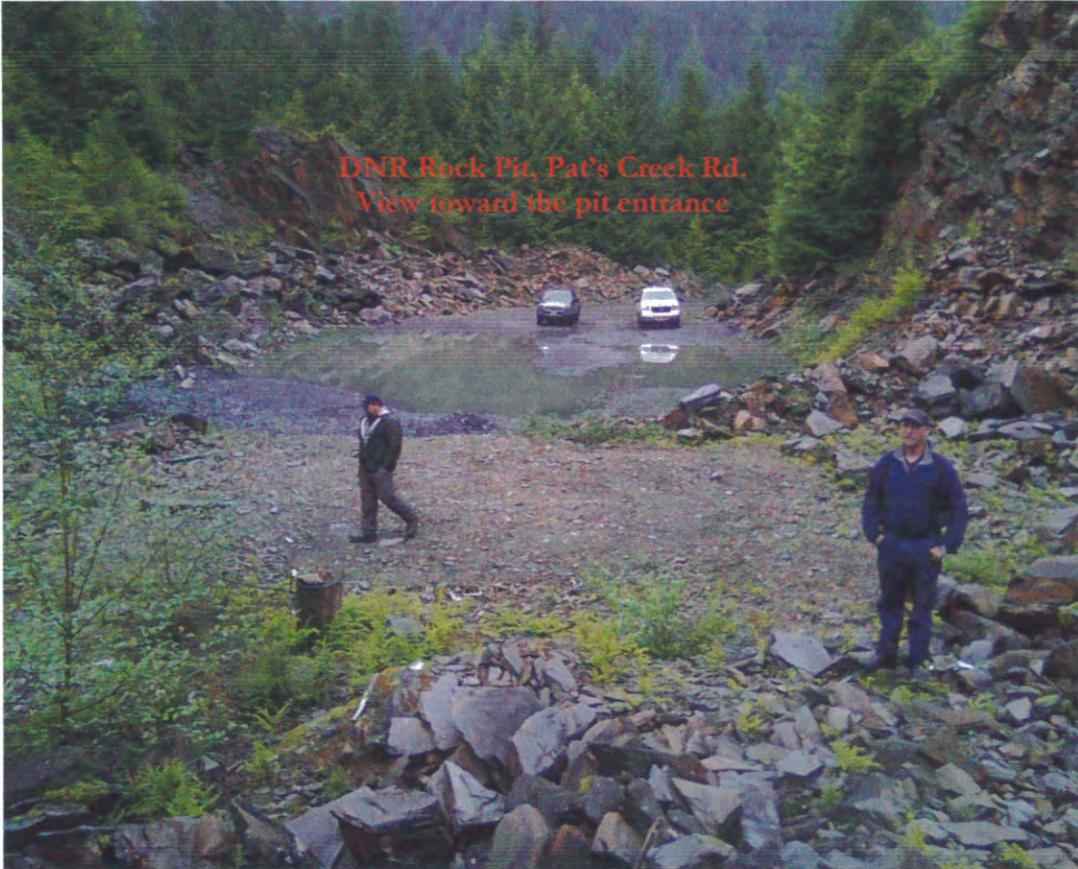
Approximately eight miles south of the Wrangell Junkyard site, what is believed by the City Assembly to be a closed, DNR-owned pit, is located up an unmaintained road off of Pat's Creek Road. The pit itself has adequate space, is located out of the way and access to the site could be controlled with a gate or other barricade. However, both the site and the access road to it are densely overgrown with alders and would require at least a week of prep work with heavy equipment. Additionally, there is water in the floor of the pit that may require some management. DNR has not been consulted about this potential site.



Site #4, PREFERRED ALTERNATIVE- DNR Rock Pit #2 on Pat's Creek Road
(Lat. 56.35281N, Long. 132.31198W)

This site, approximately eight miles south of the Junkyard site, is by far the most preferred alternative. The pit is more than adequately sized, has high walls on three sides, and is fairly dry and clear of debris and vegetation. The pit is close to Pat's Creek Road, and the access does not require improvements. There is adequate space for truck turnaround to limit congestion, and the entrance is easily blocked off to limit access. The site requires the least prep work of the three rock pit sites. Although liners are typically recommended for these types of disposal sites, the Division of Solid Waste may not recommend a liner given the site's characteristics, location, and absence of any groundwater use in the vicinity. Sloping, vegetation, top liner, and pile height are not an issue at this location. Upon closure of a monofill site at this location, institutional controls would be required, including 60 months (five years) of post-closure visual monitoring to ensure the cap is stable and no other disturbance of the site is occurring. The pit appears to be at or close to the end of its life as a rock pit. DNR has not been consulted about this potential site.







May 20, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Corrective Action Plan (CAP) dated April 5, 2016 and approved April 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site excavation and remediation activities as performed between May 11, 2016 and May 18, 2016.

Project Site Activities:

This past week's activities were focused on processing the contaminated soils through the screen plant, and treating material using ECOBOND. Once laboratory TCLP sample results showed that treated stockpiles met the target goal of less than 5 mg/L lead, the treated materials were then added to the lined, bermed treated soils stockpile located on the lower portion of Area B.

May 11:

- Lined stockpile area

May 12:

- Completed lining stockpile area
- Sort oversized material
- Remove woody debris to Wrangell Institute site

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- Filled and sent out containers of debris and POL soil

May 13:

- Screened and treated material
- Moved full containers to AML

May 14:

- SWPPP inspection
- Screened and treated material

May 15:

- Site maintenance

May 16-18:

- Screened and treated material

Project activities accomplished:

- Completed excavation work on MHT property
 - Backfilled this area with rock
- **NORTECH** collected field screening and laboratory samples from excavation areas
- Collected site water processed through water treatment system
 - A total of 82,584 gallons of collected site water has been processed to date
 - Water is discharged to ground surface, through six inch rock
- Water treatment sample results to date

Sample Number	Date	Meter (gal)	Field pH	Lab Total Lead (ug/L)
CZ-20160420-W1	04/20/2016	16564	11	7.88
CZ-20160428-W2	04/28/2016	27275	9.9	47.9
CZ-20160502-W3	05/02/2016	42406	10.2	183
CZ-20160503-W4	05/03/2016	53868	10.3	202
CZ-20160518-W5	05/18/2016	82584	9.5	Pending lab results

- Continued ECOBOND treatment
 - Initial treatment was conducted on 900 cubic yards from the lead contaminated stockpile this week
 - Total treated material to date: 1875 cubic yards
 - Lab samples sent off to verify treatment effectiveness
- Treated Stockpile (all results to date)

Stockpile #	Date	Size (yds ³)	Lab TCLP (mg/L)
TSP-1	05/04/2016	160	0.0730
TSP-2	05/06/2016	215	ND
TSP-3	05/10/2016	300	0.0814
TSP-4	05/11/2016	300	ND
TSP-5	05/14/2016	300	ND
TSP-6	05/15/2016	300	0.0953
TSP-7	05/16/2016	300	Awaiting results



Project challenges encountered:

- Heavy equipment breakdown and maintenance issues

Anticipated Project activities for the next week:

- Screen and ECOBOND process stockpiled contaminated soils
- Treat and discharge collected site water through water treatment plant

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

Site Progress Map

NRC Alaska

Dan Strucher

Sr. Project Manager



Photo 1: ECOBOND Treated soil stockpiles awaiting laboratory confirmation



Photo 2: Treated soil that has passed TCLP analysis is placed into the lined containment cell



Photo 3: Lead acid batteries are continually removed from the site soils



Photo 4: Sorting debris before material is run through screen plant

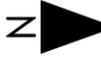
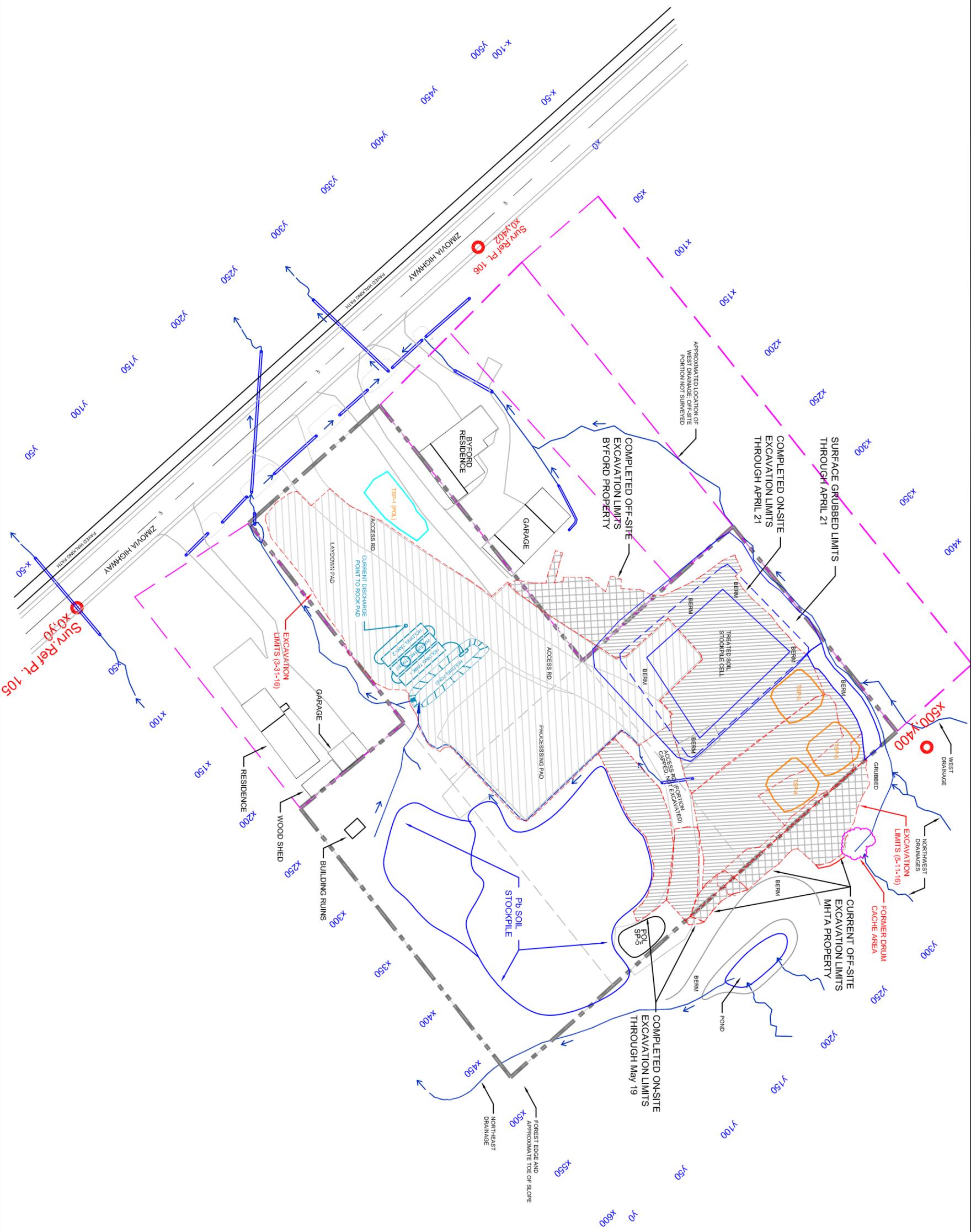


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WORKING MAP (EXCAVATION(S) COMPLETED THROUGH MAY 19, 2016)
 WRANGELL JUNKYARD CLEANUP
 WRANGELL, ALASKA

DATE: 05/19/2016	SCALE: 1" = 75'
PROJ MGR: JIG	PROJECT: 15-1150
DRAWN: RJP	DWG. NO.: 151150b(xx)

FIGURE
 XX





May 27, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

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Project Site Activities:

This past week's activities were focused on processing the contaminated soils through the screen plant, and treating material using ECOBOND. Material was passed through the screen plant, treated with ECOBOND, each treatment batch was sampled for TCLP analysis, and then the treated materials were immediately added to the lined, bermed treated soils stockpile located on the lower portion of Area B.

May 19-21:

- Screened and treated soils
- SWPPP inspection May 21

May 22:

- NRC crew day off
- Pumped collection pond water through water treatment system

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May 23-25:

- Screened and treated material
- Excavated and cleared small areas near upper site access road to extend treatment areas

Project activities accomplished:

- Completed minor excavation work Area B/upper access road
 - Backfilled this area with rock, expanded treatment cell
- Burned accumulated woody debris at Wrangell Institute
- **NORTECH** collected field screening and laboratory samples from excavation areas
- Collected site water processed through water treatment system
 - A total of 87,882 gallons of collected site water has been processed to date
 - Water is discharged to ground surface, through six-inch rock
- Water treatment sample results to date

Sample Number	Date	Meter (gal)	Field pH	Field Turbidity	Lab Total Lead (ug/L)
CZ-20160420-W1	04/20/2016	16564	11	0.27	7.88
CZ-20160428-W2	04/28/2016	27275	9.9	16.81	47.9
CZ-20160502-W3	05/02/2016	42406	10.2	89.2	183
CZ-20160503-W4	05/03/2016	53868	10.3	128	202
CZ-20160518-W5	05/18/2016	82584	9.5	126	Pending lab results
CZ-20160524-W6	05/24/2016	87882	9.5	61.9	Pending lab results

- Continued ECOBOND treatment, dry weather led to increased productivity
 - Initial treatment was conducted on 2100 cubic yards from the lead contaminated stockpile this week
 - Total treated material to date: 3975 cubic yards
 - Lab samples sent off to verify treatment effectiveness
- Treated Stockpile (all results to date)

Stockpile #	Date	Size (yds ³)	EcoBond by Wt.	Lab TCLP (mg/L)	Lab SPLP (mg/L)
TSP-1	05/04/2016	160	3.0%	0.0730	Pending lab results
TSP-2	05/06/2016	215	3.0%	0.0500U	Pending lab results
TSP-3	05/10/2016	300	3.0%	0.0814	Pending lab results
TSP-4	05/11/2016	300	3.0%	0.0500U	Pending lab results
TSP-5	05/14/2016	300	3.0%	0.0500U	Pending lab results
TSP-6	05/15/2016	300	3.0%	0.0953	Pending lab results
TSP-7	05/16/2016	300	3.0%	0.0500U	Pending lab results
TSP-8	5/19/2016	300	2.0%	0.0500U	Pending lab results
TSP-9	5/21/2016	300	2.0%	0.0500U	Pending lab results
TSP-10	5/21/2016	300	2.0%	0.0500U	Pending lab results
TSP-11	5/22/2016	300	2.0%	Pending lab results	Pending lab results
TSP-12	5/23/2016	300	2.0%	Pending lab results	Pending lab results
TSP-13	5/25/2016	300	2.0%	Pending lab results	Pending lab results
TSP-14	5/25/2016	300	2.0%	Pending lab results	Pending lab results

- U = Result less than limit of detection (0.0500 mg/L)

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



Project challenges encountered:

- Minor heavy equipment breakdown and maintenance issues

Anticipated Project activities for the next week:

- Screen and ECOBOND process stockpiled contaminated soils
- Treat and discharge collected site water through water treatment plant

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

Sr. Project Manager



Photo 1: ECOBOND Treated soil stockpile. Water is pumped to treatment system weekly



Photo 2: ECOBOND mixing area at upper portion Area B, treated soil stockpile at lower portion.



Photo 3: General site overview, May 25, 2016



June 2, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

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PO Box 111800

Juneau, AK 99811-1800

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Project Site Activities:

This past week's activities were focused on processing the contaminated soils through the screen plant, and treating material using ECOBOND. Material was passed through the screen plant, treated with ECOBOND, each treatment batch was sampled for TCLP analysis, and then the treated materials were immediately added to the lined, bermed treated soils stockpile located on the lower portion of Area B.

Project activities accomplished:

- Sorted and loaded for shipment metal debris
- Sorted and hauled woody debris at Wrangell Institute
- **NORTECH** collected field screening and laboratory samples from excavation areas
- **NORTECH** conducted SWPPP inspections
- Collected site water processed through water treatment system

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- A total of 89,364 gallons of collected site water has been processed to date
- Water is discharged to ground surface, through six-inch rock
- Continued ECOBOND treatment, familiarity with methods led to consistent productivity
 - Initial treatment was conducted on 2150 cubic yards from the lead contaminated stockpile this week
 - Total treated material to date: 6125 cubic yards
 - About 15-18% of total screened material is oversized, with rock, woody debris and metallic (automotive) debris
 - Lead acid batteries are prevalent, and are watched for and removed for packaging and disposal when found
 - Lab samples sent off to verify treatment effectiveness

Project challenges encountered:

- Minor heavy equipment breakdown and maintenance issues
- Rainfall was a minor factor during this period, with the week's total of 0.9 inches at the Site
- ECOBOND shipment delayed due to shipping difficulties in Lower 48
 - Further treatment will be delayed for several days until the next barge arrives

Anticipated Project activities for the next week:

- Extend treated soil containment cell onto the upper portion of Area B
- Excavate remaining portion of Area A contaminated material along Byford property boundary
- Treat and discharge collected site water through water treatment plant

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

Sr. Project Manager

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



Photo 1: *Sorting oversized material to remove metallic and woody debris*



Photo 2: *Aerial view of Site as of May 30, 2016*



Photo 3: Overview of Site, note oversize material sorting, and use of rock as backfill. Metallic debris is packaged for shipment off site.

MEMORANDUM

State of Alaska

Department of Environmental Conservation
Division of Spill Prevention and Response- Contaminated Sites

TO: Kristin Ryan, Division Director
Jennifer Roberts, Program Manager

DATE: June 3, 2016

THRU:

FILE NO:

PHONE NO: 465-5076

FROM:  Sally Schlichting, SE Unit Manager

SUBJECT: Proposed Monofill Option for Wrangell
Junkyard
Lead Contaminated Soil

This memo provides a summary of the issues surrounding the CS Program's preferred option for the disposal of stabilized, lead-contaminated soil generated by the DEC-led emergency response cleanup at the Wrangell (Byford) Junkyard at 4-mile Zimovia Highway in Wrangell.

Brief Site Summary

The emergency removal action initiated by DEC and funded out of the state's emergency response fund account, began at the Junkyard site in February 2016, with the stabilization phase slated to be completed by end of July 2016. The work includes the excavation of approximately 16,000 cubic yards of soil, treatment through lead-stabilization with EcoBond, and stockpiling the material onsite. Early estimates prior to the commencement of the cleanup had suggested only 4,000 cubic yards of lead contaminated soil were present at the site. Subsequent investigation found four times that amount. Based on the early estimate, the preferred disposal option for the stabilized material was shipment and disposal at a lower '48 permitted solid waste facility. However, due increased cost estimated at over \$15 million-- of the project for both cleanup and shipping and disposal of 16,000 cubic yards of material -- construction of a monofill disposal facility at a site accessible via the Wrangell road system is now the option preferred by DEC. As DEC has already committed nearly \$7 million to this project, a Wrangell monofill option would reduce the overall project cost significantly and also provide an opportunity to access federal funding from EPA. In this scenario, EPA's emergency removal action program would step in to fund and complete the disposal portion. However, a number of factors must be addressed to make this happen. These include site selection, funding, timing, monofill construction requirements, and institutional controls and long-term monitoring.

Monofill Site Selection

A site must be identified in order for the monofill option to be pursued. Contaminated Sites Program staff have investigated several candidate sites with its response contractor and the City of Wrangell. These are identified on the following aerial map.



Two sites owned by the City (Running Track and Spur Road Pit) were found to be too small or too accessible by the public to be viable options. The City would prefer a site located well out of town, but outlying areas are not typically under municipal ownership. Also, developable land under city ownership is at a premium. The two rock pits on state DNR land located on Pat's Creek Road were inspected and found to be suitable candidates for constructing the monofill. They are identified as Pit #1 and Pit #2 in this memo. Pit #2 is preferred, but either pit appears to be suitable.

Funding

The DEC has already committed nearly \$7 million to this project and further draw down of the emergency spill response account risks the state's ability to adequately respond to a large spill emergency.

The funding available to the EPA for a Time Critical Removal Action is typically limited to \$2 million, which is why the monofill option is preferred; estimated costs for shipping and disposing the stabilized lead contaminated soil are at least \$6 million.

Timing

Several scheduling considerations need to be taken into account:

- Once the soil is stabilized-- although it is still polluted and contaminants may be bioavailable-- it may be stored on the Junkyard property on an approved liner and covered for up to two years.
- If a state-owned or Trust-owned rock pit site can be set aside for construction of the monofill, it is DEC's understanding that approximately 120 days is required to draft a decision document, allow for public comment, finalize the decision document, and allow for an appeals period, before construction of a monofill can begin.
- If EPA agrees to take on the project, they have only six months from the date of that decision to complete the work. In addition, they must make the case that there is imminent and substantial risk at the site for them to take action.

Monofill Construction Requirements

The lead contaminated soil will be treated with a reliable and tested product called EcoBond, which utilizes phosphate to stabilize the lead in the soil and sharply reduce its leachability. However, the lead is still present in the material, which is characterized as polluted soil. If consumed by humans, plants, or animals, the lead may have some bioavailability that is potentially toxic. As a result, encapsulating the material into a monofill will limit these exposures. A rock pit is ideal because of the bedrock floor, steep walls, and the ability to control access by human and ecological receptors.

A monofill design that meets solid waste disposal regulations under 18 AAC 60 can be constructed with or without a liner. A liner typically requires a leachate collection system which would entail a higher level long-term monitoring commitment. Construction without a liner is possible if it can be demonstrated that the lead in the material will not leach into groundwater that may be a current or potential future use of drinking water; or impact nearby streams. Construction without a liner is preferred. NOTE: DEC has the capacity to fund the fate and transport modeling analysis and rock pit leachability study for whichever site is selected.

Conceptually, once the material is placed throughout the designated area of the site, it is then covered with a membrane liner and then may be capped with, for example: two feet of D-1 (3/4" rock and sand mix), followed by a layer of six-inch rock, then a layer of soil which is vegetated. NOTE: DEC has the capacity to fund the development of a basic schematic design of what the monofill would look like for use by DNR in its public involvement process.

One question received from DNR is whether a rock pit could continue to be used once the monofill is in place. Tentative discussion with EPA and DEC's contractor indicate this is feasible. Such a use would change the composition of the cap in order to provide a sturdy and impermeable work surface; however, this would be outside of the scope of EPA's funding and Time Critical Removal Action and therefore other funding would need to be found to construct this surface.

Institutional Controls and Long-term Monitoring

Institutional controls would be required for this site by DEC's Contaminated Sites Program. These would include long-term monitoring and reporting, signage, and possibly engineering measures such as a gate, fence or other deterrent that alerts the public of the restricted nature of the site and protects the liability of the monofill facility site owner. Monthly inspections are required for the first five years to ensure that the cap is stable and remains adequately vegetated. Following the five year

period, monitoring can be reduced. If a liner with a leachate collection system is in place, it must be monitored on a periodic basis depending upon the amount of leachate that is generated. The EcoBond lead contaminated material itself remains stable indefinitely, however current modeling tools are limited to a 100-year outlook.

Candidate Sites

Following are images and descriptions of the two rock pits describing locations and conditions.

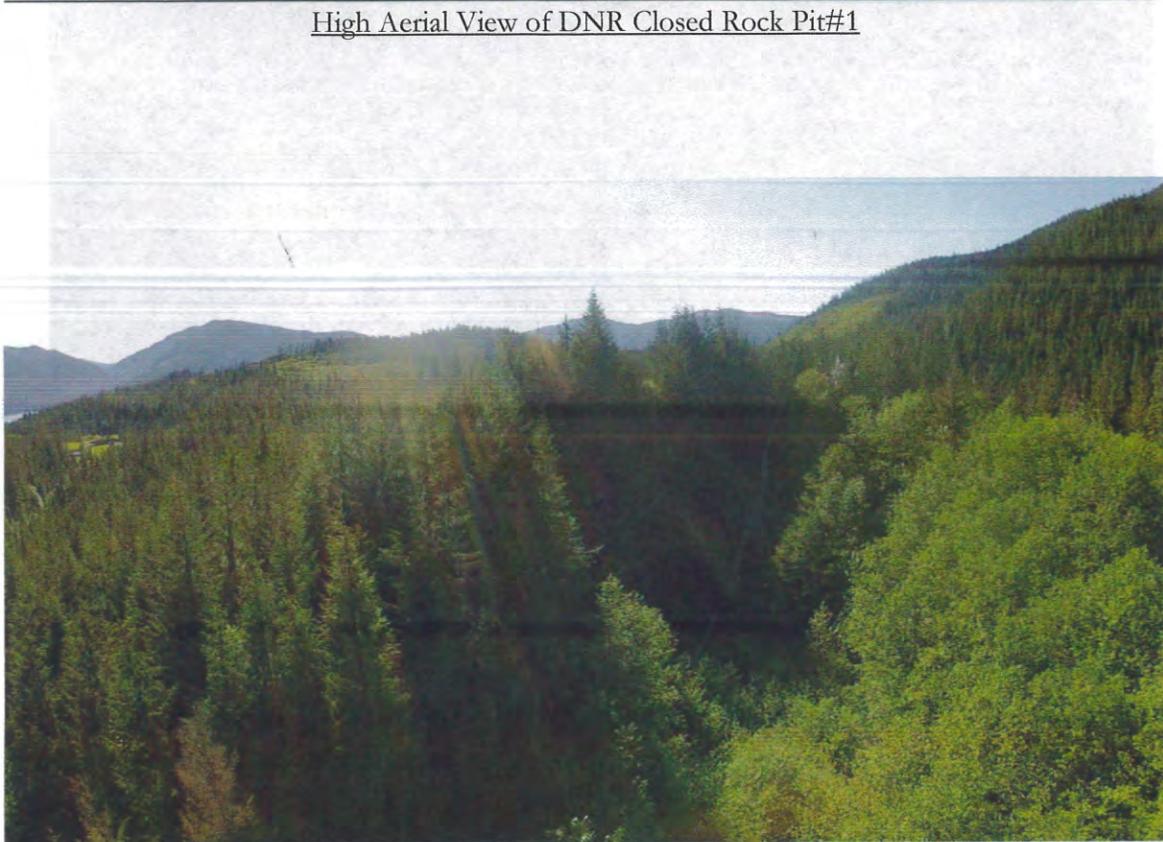
Closed DNR Rock Pit, #1 on Pat's Creek Road



Approximately eight miles south of the Wrangell Junkyard site, what is believed to be a closed, DNR-owned pit, is located up an unmaintained road off of Pat's Creek Road. The pit itself has adequate space, is located out of the way and access to the site could be controlled with a gate or other barricade. However, both the site and the access road to it are densely overgrown with alders and would require at least a week of prep work with heavy equipment. The access road would require improvement to support truck traffic. Additionally, there is water in the floor of the pit that may require some management. Indications are that this pit is not frequented by the public for any recreational activity. The following aerial images provide a sense of the size, but due to the vegetation, the exact shape and condition of the pit floor are not discernible. Initial discussions with Rob Edwardson and Lee Cole of DNR's Mining, Lands and Water Southeast Regional Office, indicate this site could potentially be used for the monofill.



High Aerial View of DNR Closed Rock Pit#1



Low Aerial View of DNR Closed Rock Pit#1

DNR Rock Pit #2 on Pat's Creek Road
PREFERRED ALTERNATIVE
(Lat. 56.35281N, Long. 132.31198W)



This site, approximately eight miles south of the Junkyard site, is the preferred alternative. The pit is more than adequately sized, has high walls on three sides, and is fairly dry and clear of debris and vegetation. The pit is close to Pat's Creek Road, and the access does not require improvements. There is adequate space for truck turnaround to limit congestion during soil load-in, and the entrance is easily blocked off to limit access. The site requires the least prep work of the two sites. Although the pit appears to be unused and locals report that the rock is of poor quality compared to other available sources, a monofill design that allows for continued extraction of pit rock is potentially feasible. Sloping, vegetation, top liner, and pile height are not an issue at this location. Initial discussions with Rob Edwardson and Lee Cole of DNR's Mining, Lands and Water Southeast Regional Office, indicate this site could potentially be used for the monofill.

Aerial View of Rock Pit #2







June 10, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Corrective Action Plan (CAP) dated April 5, 2016 and approved April 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site excavation and remediation activities as performed between June 2, 2016 and June 8, 2016.

Project Site Activities:

This past week's activities were focused on construction for the expansion of the treated soil stockpile cell, moving material within the contaminated soils stockpile, debris removal and preparation for further screening and treatment of the lead contaminated material. The remaining lead contaminated materials from Area A were also excavated and hauled to the contaminated soil stockpile.

Project activities accomplished:

- Construction of rock berms on upper portion of Area B for treated stockpile expansion
- Sorted and loaded for shipment metal debris
 - Large rock leftover from the screening process is then used as fill on-site
- Sorted and hauled woody debris for later burning at Wrangell Institute

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



- Remaining contaminated material from lower perimeter portions of Area A were excavated
 - Automotive debris and battery carcasses were evident throughout area
 - Excavation area has been backfilled with rock
- **NORTECH** collected field screening and laboratory samples from excavation areas
- **NORTECH** conducted SWPPP inspections
 - Due to low rainfall, no water was processed during this period

Project challenges encountered:

- Large metal debris in the Area A excavations
- Large concrete pad at lower end of Area A

Anticipated Project activities for the next week:

- Install liner in expanded stockpile cell
- Excavate to clean boundaries along perimeter of Areas C & D
- Treat and discharge collected site water through water treatment plant

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

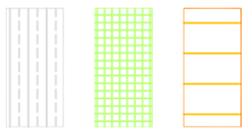
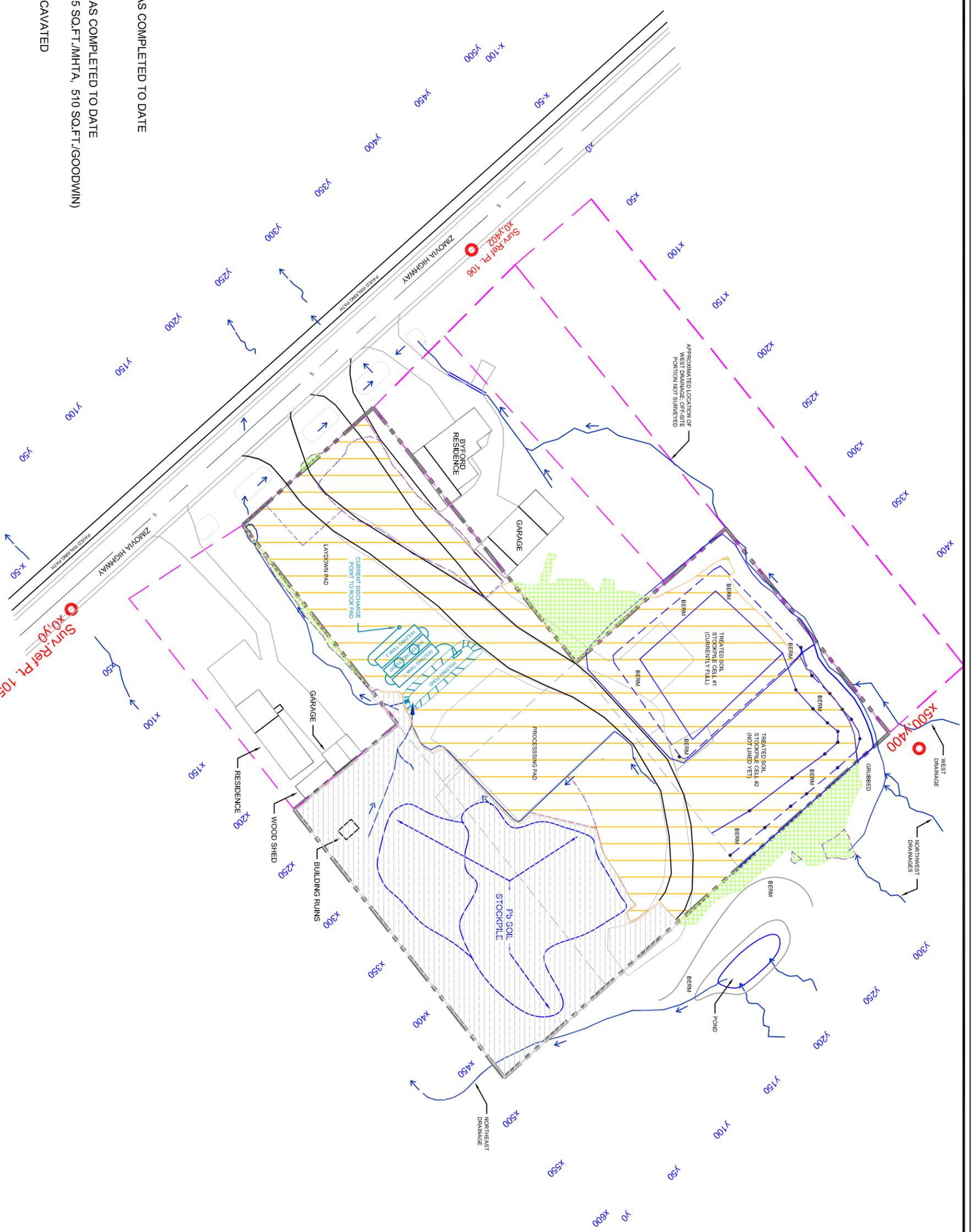
Sr. Project Manager



Photo 1: Large metal debris removed from lower portion of Area A



Photo 2: Expansion of Area B treated soil stockpile



LEGEND

ON-SITE EXCAVATION AREAS COMPLETED TO DATE
(71,350 SQ. FT.0)

OFF-SITE EXCAVATION AREAS COMPLETED TO DATE
(3,275 SQ.FT./BYFORD, 3,625 SQ.FT./MHTA, 510 SQ.FT./GOODWIN)

AREA REMAINING TO BE EXCAVATED
(35,260 SQ. FT.)



SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
2400 College Road, Fairbanks, AK 99709 907-452-5688
3105 Lakeshore Dr. Ste A106, Anchorage, AK 99517 907-222-2445
5438 Shaurer Dr. Ste B, Juneau, AK 99901 907-586-6313

WORKING MAP (EXCAVATION(S) COMPLETED THROUGH JUNE 9, 2016)
MRANGELL JUNKYARD CLEANUP
MRANGELL, ALASKA

DATE: 06/09/2016	SCALE: 1" = 75'
PROJ MGR: JIG	PROJECT: 15-1150
DRAWN: RJP	DWG. NO.: 151150b(xx)

FIGURE
XX

Weekly Update Information

June 8, 2016

Total weekly rainfall: 1.2 inches (measured from last Thursday)

Water Treatment System: (all results to date)

Sample Number	Date	Meter (gal)	Field pH	Field Turbidity	Lab Total Lead (ug/L)
CZ-20160420-W1	04/20/2016	16564	11	0.27	7.88
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CZ-20160524-W6	05/24/2016	87882	9.5	61.9	130
CZ-20160531-W7	05/31/2016	89364	9.4	24.4	Pending lab results
No sample	6/8/2016	96607	-	-	-

* No water sample was taken from the water treatment system the first week of June as there was no water in the system to sample. All water was discharged after taking sample W7.

Treated Stockpile (all results to date)

Stockpile #	Date	Size (yds ³)	EcoBond by Wt.	Lab TCLP (mg/L)	Lab SPLP (mg/L)
TSP-1	05/04/2016	160	3.0%	0.0730	Pending lab results
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U = Result less than limit of detection (0.0500 mg/L)



June 10, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

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This past week's activities were focused on construction for the expansion of the treated soil stockpile cell, moving material within the contaminated soils stockpile, debris removal and preparation for further screening and treatment of the lead contaminated material. The remaining lead contaminated materials from Area A were also excavated and hauled to the contaminated soil stockpile.

Project activities accomplished:

- Construction of rock berms on upper portion of Area B for treated stockpile expansion
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EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



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We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

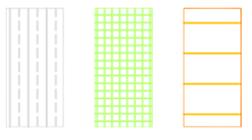
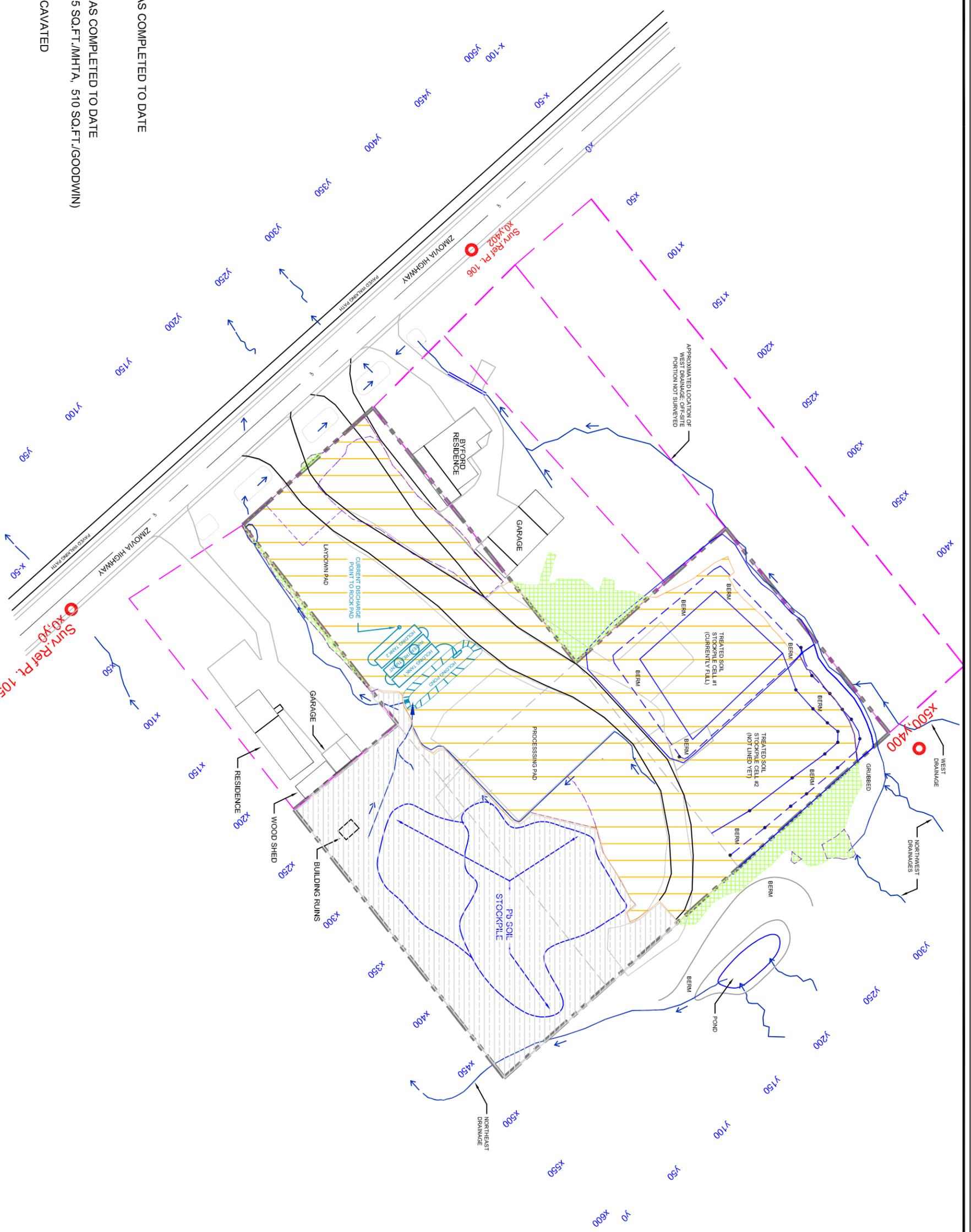
Sr. Project Manager



Photo 1: Large metal debris removed from lower portion of Area A



Photo 2: Expansion of Area B treated soil stockpile



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FIGURE
XX

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June 17, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

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We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

Sr. Project Manager



Photo 1: Treated soils stockpile cell expansion, upper portion of Area B



Photo 2: Filling treated soil stockpile cell, after ECOBOND treatment



Photo 3: Aerial view of Site, June 16, 2016

Weekly Update Information

June 16, 2016

Total weekly rainfall: 0.85 inches (measured from last Thursday)

Total cubic yards Treated since last report: 1,700 (700 on 6/14/2016 and 1,000 on 6/15/2016)

Water Treatment System: (all results to date)

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CZ-20160531-W7	05/31/2016	89364	9.4	24.4	Pending lab results
CZ-20160606-W8	06/06/2016	89364	-	-	Pending lab results
CZ-20160613-W9	06/13/2016	96607	5.6	10.9	Pending lab results

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TSP-13	5/25/2016	300	2.0%	Pending lab results	Pending lab results
TSP-14	5/25/2016	300	2.0%	Pending lab results	Pending lab results
TSP-15	5/26/2016	300	2.0%	Pending lab results	Pending lab results
TSP-16	5/26/2016	300	2.0%	Pending lab results	Pending lab results
TSP-17	5/28/2016	300	2.0%	Pending lab results	Pending lab results
TSP-18	5/28/2016	300	2.0%	Pending lab results	Pending lab results
TSP-19	5/31/2016	300	2.0%	Pending lab results	Pending lab results
TSP-20	5/31/2016	300	2.0%	Pending lab results	Pending lab results
TSP-21	5/31/2016	300	2.0%	Pending lab results	Pending lab results

Stockpile #	Date	Size (yds³)	EcoBond by Wt.	Lab TCLP (mg/L)	Lab SPLP (mg/L)
TSP-22	6/14/2016	300	2.0%	Pending lab results	Pending lab results
TSP-23	6/14/2016	300	2.0%	Pending lab results	Pending lab results
TSP-24	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-25	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-26	6/15/2016	300	2.0%	Pending lab results	Pending lab results

U = Result less than limit of detection (0.0500 mg/L)



June 24, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Corrective Action Plan (CAP) dated April 5, 2016 and approved April 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site excavation and remediation activities as performed between June 16, 2016 and June 22, 2016.

Project Site Activities:

This past week's activities were focused on construction for the expansion of the treated soil stockpile cell, moving material within the contaminated soils stockpile, debris removal and preparation for further screening and treatment of the lead contaminated material. A small portion at the upper end of Area C and extending onto Mental Health Trust land was excavated to clean limits. In addition to that work, 1,700 cubic yards of the stockpiled contaminated materials were run through the screen plant to remove oversized material and debris, ECOBOND treated and placed into the lined treated soil stockpile.

Project activities accomplished:

- Sorted and loaded metal debris for shipment
 - Large rock leftover from the screening process is then used as fill on-site
- Sorted and hauled woody debris for later burning at Wrangell Institute

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- **NORTECH** conducted SWPPP inspections
- Due to drier conditions, no water runoff from the Site was processed through the Water Treatment System
 - To date a total of 96,607 gallons have been processed and discharged to the Site ground surface
- Stockpiled contaminated soils were processed via screening to remove debris and oversized material and then ECOBOND treated
 - **NORTECH** sampled the treated soils for verification
 - All treated materials have been added to the treated soils stockpile
 - 2,600 cubic yards of material have been ECOBOND treated since June 16
 - To date 10,475 cubic yards of material have been ECOBOND treated and stockpiled in the lined containment cell

Project challenges encountered:

- Heavy equipment breakdown and maintenance
- Amount of metal debris present amongst oversized material
- One day of heavy rain

Anticipated Project activities for the next week:

- ECOBOND treatment of stockpiled contaminated soils
- Treat and discharge collected site water through water treatment plant as warranted
- Extend stockpile berms as needed

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

Sr. Project Manager

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



Photo 1: Treated soils stockpile cell expansion, upper portion of Area B



Photo 2: Contaminated soil stockpile, using bulldozer to push material to screen plant



Photo 3: Aerial view of Site, June 23, 2016

Weekly Update Information

June 22, 2016

Total weekly rainfall: 0.65 inches (measured from last Thursday)

Removed SWPPP BMPs from bottom of site, including remaining silt fence and fiber rolls around and in roadside ditches.

Water Treatment System: (all results to date)

Sample Number	Date	Meter (gal)	Field pH	Field Turbidity	Lab Total Lead (ug/L)
CZ-20160420-W1	04/20/2016	16564	11	0.27	7.88
CZ-20160428-W2	04/28/2016	27275	9.9	16.81	47.9
CZ-20160502-W3	05/02/2016	42406	10.2	89.2	183
CZ-20160503-W4	05/03/2016	53868	10.3	128	202
CZ-20160518-W5	05/18/2016	82584	9.5	126	164
CZ-20160524-W6	05/24/2016	87882	9.5	61.9	130
CZ-20160531-W7	05/31/2016	89364	9.4	24.4	Pending lab results
CZ-20160606-W8	06/06/2016	89364	-	-	Pending lab results
CZ-20160613-W9	06/13/2016	96607	5.6	10.9	Pending lab results
CZ-20160622-W10	06/22/2016	96607			Pending lab results

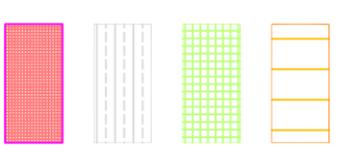
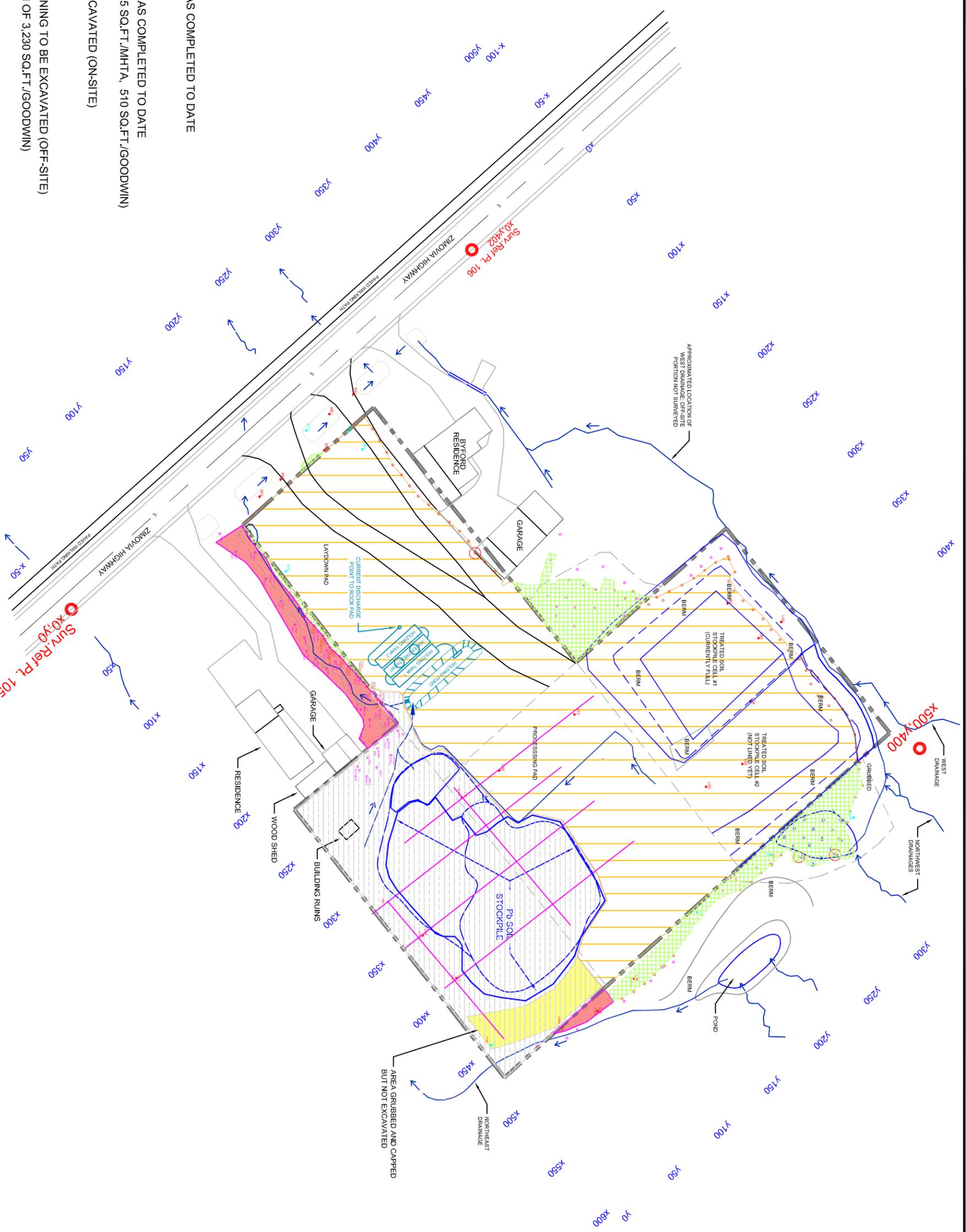
Treated Stockpile (all results to date)

Stockpile #	Date	Size (yds ³)	EcoBond by Wt.	Lab TCLP Lead (mg/L)	Lab SPLP Lead (mg/L)
TSP-1	05/04/2016	160	3.0%	0.0730	0.0500U
TSP-2	05/06/2016	215	3.0%	0.0500U	0.0500U
TSP-3	05/10/2016	300	3.0%	0.0814	0.107
TSP-4	05/11/2016	300	3.0%	0.0500U	0.0500U
TSP-5	05/14/2016	300	3.0%	0.0500U	0.0500U
TSP-6	05/15/2016	300	3.0%	0.0953	0.0500U
TSP-7	05/16/2016	300	3.0%	0.0500U	0.0500U
TSP-8	5/19/2016	300	2.0%	0.0500U	0.0500U
TSP-9	5/21/2016	300	2.0%	0.0500U	0.0500U
TSP-10	5/21/2016	300	2.0%	0.0500U	0.0500U
TSP-11	5/22/2016	300	2.0%	0.0500U	0.0500U
TSP-12	5/23/2016	300	2.0%	0.0539	0.0612
TSP-13	5/25/2016	300	2.0%	Pending lab results	Pending lab results
TSP-14	5/25/2016	300	2.0%	Pending lab results	Pending lab results
TSP-15	5/26/2016	300	2.0%	Pending lab results	Pending lab results
TSP-16	5/26/2016	300	2.0%	Pending lab results	Pending lab results
TSP-17	5/28/2016	300	2.0%	Pending lab results	Pending lab results
TSP-18	5/28/2016	300	2.0%	Pending lab results	Pending lab results
TSP-19	5/31/2016	300	2.0%	Pending lab results	Pending lab results
TSP-20	5/31/2016	300	2.0%	Pending lab results	Pending lab results
TSP-21	5/31/2016	300	2.0%	Pending lab results	Pending lab results
Stockpile #	Date	Size (yds ³)	EcoBond by Wt.	Lab TCLP (mg/L)	Lab SPLP (mg/L)
TSP-22	6/14/2016	300	2.0%	Pending lab results	Pending lab results

TSP-23	6/14/2016	300	2.0%	Pending lab results	Pending lab results
TSP-24	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-25	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-26	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-27	6/17/2016	300	2.0%	Pending lab results	Pending lab results
TSP-28	6/17/2016	300	2.0%	Pending lab results	Pending lab results
TSP-29	6/17/2016	300	2.0%	Pending lab results	Pending lab results
TSP-30	6/18/2016	300	2.0%	Pending lab results	Pending lab results
TSP-31	6/20/2016	300	2.0%	Pending lab results	NT
TSP-32	6/20/2016	300	2.0%	Pending lab results	NT
TSP-33	6/22/2016	300	2.0%	Pending lab results	NT
TSP-34	6/22/2016	300	2.0%	Pending lab results	NT
TSP-35	6/22/2016	300	2.0%	Pending lab results	NT

U = Result less than limit of detection (0.0500 mg/L)

NT = Not tested



LEGEND

- ON-SITE EXCAVATION AREAS COMPLETED TO DATE
(74,975 SQ. FT.)
- OFF-SITE EXCAVATION AREAS COMPLETED TO DATE
(3,275 SQ.FT./BYFORD, 4,625 SQ.FT./MHTA, 510 SQ.FT./GOODWIN)
- AREA REMAINING TO BE EXCAVATED (ON-SITE)
(31,490 SQ. FT.)
- ESTIMATED AREA(S) REMAINING TO BE EXCAVATED (OFF-SITE)
(420 SQ.FT./MHTA, MINIMUM OF 3,230 SQ.FT./GOODWIN)



SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
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 3105 Lakeshore Dr. Ste A106, Anchorage, AK 99517 907-222-2448
 5438 Shaurie Dr. Ste B, Juneau, AK 99901 907-586-6813

WORKING MAP (EXCAVATION(S) COMPLETED THROUGH JUNE 17, 2016)
 WRANGELL JUNKYARD CLEANUP
 WRANGELL, ALASKA

DATE: 06/17/2016	SCALE: 1" = 75'
PROJ MGR: JIG	PROJECT: 15-1150
DRAWN: RJP	DWG. NO.: 151150b(xx)

FIGURE
 XX





July 1, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Corrective Action Plan (CAP) dated April 5, 2016 and approved April 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site excavation and remediation activities as performed between June 23, 2016 and June 29, 2016.

Project Site Activities:

This past week's activities were focused on construction for the expansion of the treated soil stockpile cell into Area C, debris removal and ECOBOND treatment of contaminated soils. A total of 2,200 cubic yards of the stockpiled contaminated materials were run through the screen plant to remove oversized material and debris, ECOBOND treated and placed into the lined treated soil stockpile.

Project activities accomplished:

- Sorted and loaded metal debris for shipment
 - Large rock leftover from the screening process is then used as fill on-site
- Sorted and hauled woody debris for later burning at Wrangell Institute
- ***NORTECH*** conducted SWPPP inspections
- Processed through the Water Treatment System

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- To date a total of 101,512 gallons have been processed and discharged to the Site ground surface
- Stockpiled contaminated soils were processed via screening to remove debris and oversized material and then ECOBOND treated
 - **NORTECH** sampled the treated soils for verification
 - All treated materials have been added to the treated soils stockpile
 - 2,200 cubic yards of material have been ECOBOND treated since June 23
 - To date 12,675 cubic yards of material have been ECOBOND treated and stockpiled in the lined containment cell

Project challenges encountered:

- Heavy equipment breakdown and maintenance
- Amount of metal debris present amongst oversized material

Anticipated Project activities for the next week:

- ECOBOND treatment of stockpiled contaminated soils
- Treat and discharge collected site water through water treatment plant as warranted
 - NRC will begin to dismantle the water treatment system as warranted by Site progress
- Burn woody debris at Wrangell Institute

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

Operations Manager

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS

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July 8, 2016

Bruce Wanstall
Environmental Program Specialist III
Alaska Department of Environmental Conservation
410 Willoughby Ave, Suite 303
PO Box 111800
Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Corrective Action Plan (CAP) dated April 5, 2016 and approved April 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site excavation and remediation activities as performed between June 30, 2016 and July 6, 2016.

Project Site Activities:

This past week's activities were focused on screening and ECOBOND treatment of identified lead contaminated soils. A total of 2,300 cubic yards of the stockpiled contaminated materials were run through the screen plant to remove oversized material and debris, ECOBOND treated and placed into the lined treated soil stockpile. Other site activities included minor excavation on the Goodwin property, and burning of the stockpiled woody debris at the Wrangell Institute.

Project activities accomplished:

- Sorted and hauled woody debris for burning at Wrangell Institute
 - Woody debris was burned July 4 & 5th
- **NORTECH** conducted SWPPP inspections
 - 1.2 inches of rain was logged at the project site since June 30
- The water collection pond has been removed

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- The Water Treatment System is no longer needed, and will be decommissioned
 - The project total of 114,383 gallons have been processed and discharged to the Site ground surface
 - **NORTECH** will work with ADEC to close out the water discharge permit
- Stockpiled contaminated soils were processed via screening to remove debris and oversized material and then ECOBOND treated
 - **NORTECH** sampled the treated soils for verification
 - All treated materials have been added to the treated soils stockpile
 - 2,300 cubic yards of material have been ECOBOND treated since June 30
 - As of July 6, 14,975 cubic yards of material have been ECOBOND treated and stockpiled in the lined containment cell
 - Roughly 1,700 cubic yards remains to be treated as of July 6

Project challenges encountered:

- Heavy equipment breakdown and maintenance
- Amount of metal debris present amongst oversized material
- Uncertainty regarding removal of lead contaminated material from neighboring Goodwin property

Anticipated Project activities for the next week:

- Final excavation, screening and ECOBOND treatment of stockpiled contaminated soils
- Sorting oversize pile for metal debris removal
- Loading and shipping metal debris
- Demobilize equipment as warranted by Site progress

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

Principal, Juneau Technical Manager

Attachments: Site Progress photos

NRC Alaska

Dan Strucher

Sr. Project Manager

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS

Weekly Update Information

July 6, 2016

Total weekly rainfall:

June 22 - June 28: 0.75 inches

June 29 - July 7: 1.2 inches

Total cubic yards Treated since last report (June 23 – July 6): 4,400 yds³

Water Treatment System: The water treatment system was decommissioned on July 2, 2016. The last water treatment sample for total lead was taken on June 22.

Sample Number	Date	Meter (gal)	Field pH	Field Turbidity	Lab Total Lead (ug/L)
CZ-20160420-W1	04/20/2016	16564	11	0.27	7.88
CZ-20160428-W2	04/28/2016	27275	9.9	16.81	47.9
CZ-20160502-W3	05/02/2016	42406	10.2	89.2	183
CZ-20160503-W4	05/03/2016	53868	10.3	128	202
CZ-20160518-W5	05/18/2016	82584	9.5	126	164
CZ-20160524-W6	05/24/2016	87882	9.5	61.9	130
CZ-20160531-W7	05/31/2016	89364	9.4	24.4	56.8
CZ-20160606-W8	06/06/2016	89364	5.54	-	8.74
CZ-20160613-W9	06/13/2016	96607	5.6	10.9	Pending lab results
CZ-20160622-W10	06/22/2016	96607			Pending lab results

Treated Stockpile (all results to date)

Stockpile #	Date	Size (yds ³)	EcoBond by Wt.	Lab TCLP Lead (mg/L)	Lab SPLP Lead (mg/L)
TSP-1	05/04/2016	160	3.0%	0.0730	0.0500U
TSP-2	05/06/2016	215	3.0%	0.0500U	0.0500U
TSP-3	05/10/2016	300	3.0%	0.0814	0.107
TSP-4	05/11/2016	300	3.0%	0.0500U	0.0500U
TSP-5	05/14/2016	300	3.0%	0.0500U	0.0500U
TSP-6	05/15/2016	300	3.0%	0.0953	0.0500U
TSP-7	05/16/2016	300	3.0%	0.0500U	0.0500U
TSP-8	5/19/2016	300	2.0%	0.0500U	0.0500U
TSP-9	5/21/2016	300	2.0%	0.0500U	0.0500U
TSP-10	5/21/2016	300	2.0%	0.0500U	0.0500U
TSP-11	5/22/2016	300	2.0%	0.0500U	0.0500U
TSP-12	5/23/2016	300	2.0%	0.0539	0.0612
TSP-13	5/25/2016	300	2.0%	Pending lab results	Pending lab results
TSP-14	5/25/2016	300	2.0%	Pending lab results	Pending lab results
TSP-15	5/26/2016	300	2.0%	Pending lab results	Pending lab results
TSP-16	5/26/2016	300	2.0%	Pending lab results	Pending lab results
TSP-17	5/28/2016	300	2.0%	Pending lab results	Pending lab results
TSP-18	5/28/2016	300	2.0%	Pending lab results	Pending lab results
TSP-19	5/31/2016	300	2.0%	Pending lab results	Pending lab results
TSP-20	5/31/2016	300	2.0%	Pending lab results	Pending lab results
TSP-21	5/31/2016	300	2.0%	Pending lab results	Pending lab results

Stockpile #	Date	Size (yds ³)	EcoBond by Wt.	Lab TCLP (mg/L)	Lab SPLP (mg/L)
TSP-22	6/14/2016	300	2.0%	Pending lab results	Pending lab results
TSP-23	6/14/2016	300	2.0%	Pending lab results	Pending lab results
TSP-24	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-25	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-26	6/15/2016	300	2.0%	Pending lab results	Pending lab results
TSP-27	6/17/2016	300	2.0%	Pending lab results	Pending lab results
TSP-28	6/17/2016	300	2.0%	Pending lab results	Pending lab results
TSP-29	6/17/2016	300	2.0%	Pending lab results	Pending lab results
TSP-30	6/18/2016	300	2.0%	Pending lab results	Pending lab results
TSP-31	6/20/2016	300	2.0%	Pending lab results	NT
TSP-32	6/20/2016	300	2.0%	Pending lab results	NT
TSP-33	6/22/2016	300	2.0%	Pending lab results	NT
TSP-34	6/22/2016	300	2.0%	Pending lab results	NT
TSP-35	6/22/2016	300	2.0%	Pending lab results	NT
TSP-36	6/23/2016	300	2.0%	Pending lab results	NT
TSP-37	6/23/2016	300	2.0%	Pending lab results	NT
TSP-38	6/23/2016	300	2.0%	Pending lab results	NT
TSP-39	6/23/2016	300	2.0%	Pending lab results	NT
TSP-40	6/24/2016	300	2.0%	Pending lab results	NT
TSP-41	6/29/2016	300	2.0%	Pending lab results	NT
TSP-42	6/29/2016	300	2.0%	Pending lab results	NT
TSP-43	6/29/2016	300	2.0%	Pending lab results	NT
TSP-44	6/30/2016	300	2.0%	Pending lab results	NT
TSP-45	6/30/2016	300	2.0%	Pending lab results	NT
TSP-46	6/30/2016	300	2.0%	Pending lab results	NT
TSP-47	7/01/2016	300	2.0%	Pending lab results	NT
TSP-48	7/01/2016	300	2.0%	Pending lab results	NT
TSP-49	7/06/2015	300	4.0%	Pending lab results	NT
TSP-50	7/06/2016	300	4.0%	Pending lab results	NT
TSP-51	7/07/2016	300	4.0%	Pending lab results	NT
TSP-52	7/07/2016	300	4.0%	Pending lab results	NT

U = Result less than limit of detection (0.0500 mg/L)

NT = Not tested



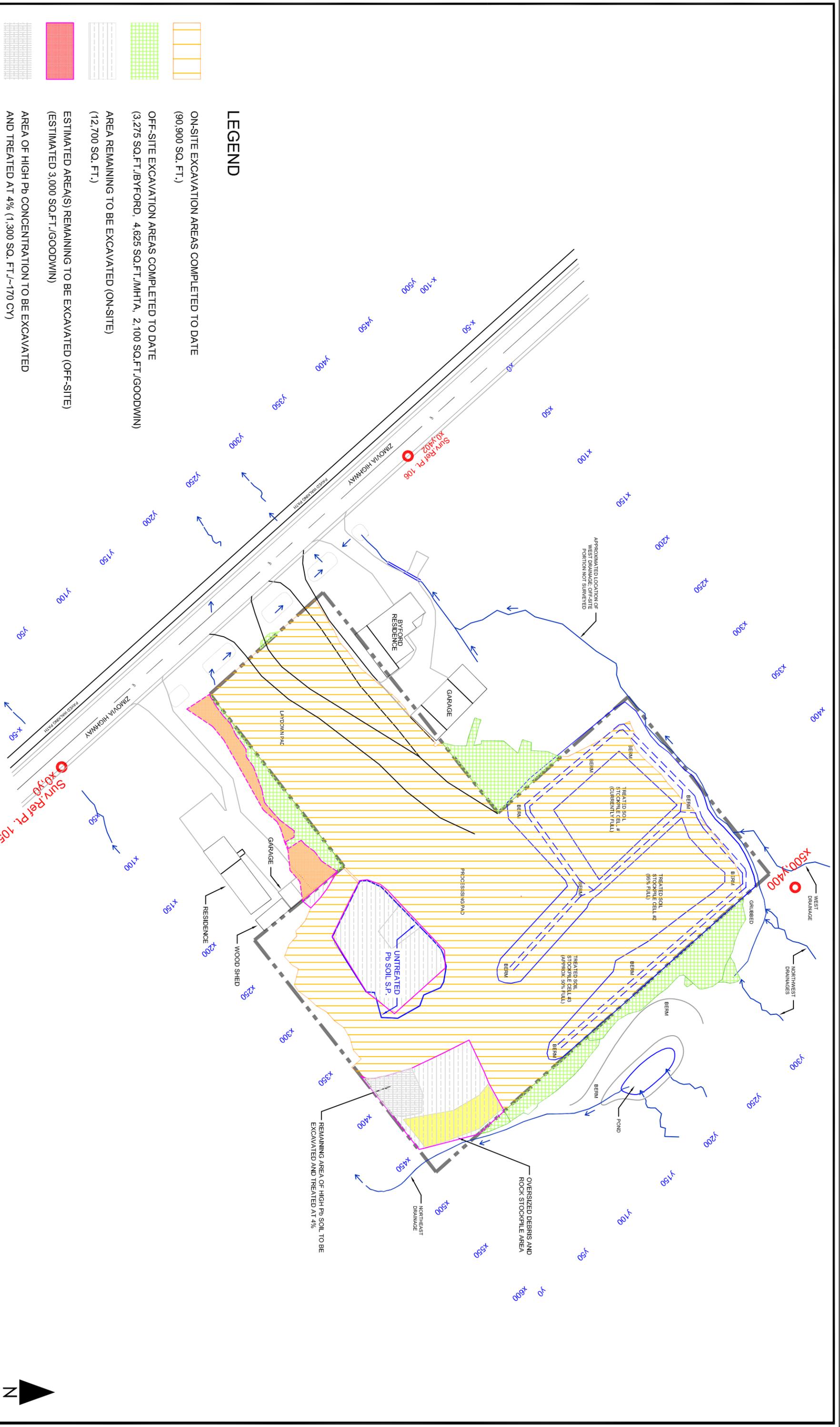
Photo 1: Treated soil stockpile



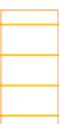
Photo 2: Excavation, Area D



Photo 3: Aerial view of Site, July 7, 2016



LEGEND

-  ON-SITE EXCAVATION AREAS COMPLETED TO DATE (90,900 SQ. FT.)
-  OFF-SITE EXCAVATION AREAS COMPLETED TO DATE (3,275 SQ.FT./BYFORD, 4,625 SQ.FT./MHTA, 2,100 SQ.FT./GOODWIN)
-  AREA REMAINING TO BE EXCAVATED (ON-SITE) (12,700 SQ. FT.)
-  ESTIMATED AREAS) REMAINING TO BE EXCAVATED (OFF-SITE) (ESTIMATED 3,000 SQ.FT./GOODWIN)
-  AREA OF HIGH Pb CONCENTRATION TO BE EXCAVATED AND TREATED AT 4% (1,300 SQ. FT./~170 CY)



SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
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 3105 Lakeshore Dr. Ste A106, Anchorage, AK 99517 907-222-2448
 5438 Shoreline Dr. Ste B, Juneau, AK 99901 907-586-6813

WORKING MAP (EXCAVATION(S) COMPLETED THROUGH JULY 6, 2016)
 WRANGELL JUNKYARD CLEANUP
 WRANGELL, ALASKA

DATE: 07/06/2016	SCALE: 1" = 75'
PROJ MGR: JIG	PROJECT: 15-1150
DRAWN: RJP	DWG. NO.: 151150b(xx)

FIGURE
 XX





July 29, 2016

Bruce Wanstall

Environmental Program Specialist III

Alaska Department of Environmental Conservation

410 Willoughby Ave, Suite 303

PO Box 111800

Juneau, AK 99811-1800

RE: Weekly Project Status Update Report, Wrangell Junkyard Site Cleanup

Mr. Wanstall,

NRC Alaska and NORTECH are pleased to provide the following Project Status update for the Wrangell Junkyard Cleanup Project. As we have discussed, our goal is to provide a status update on a weekly basis, with photos, maps and notes as appropriate so that all interested parties may remain apprised on progress in the field on a regular basis. We are currently performing work as detailed in the Corrective Action Plan (CAP) dated April 5, 2016 and approved April 12, 2016, and the Storm Water Pollution Prevention Plan (SWPPP) for the project as detailed under Alaska Pollutant Discharge Elimination System (APDES) permit # AKR10FG27. This Project Status Update covers the site **excavation** and remediation activities as performed between July 22, 2016 and July 28, 2016.

Project Site Activities:

This past week's activities were focused on closing the treated soil stockpile cell, debris removal, backfill, decontaminating and demobilizing equipment, and final site back fill and grading.

Project activities accomplished:

- Sorted and hauled woody debris for burning at Wrangell Institute
 - All woody debris stockpiled at the Wrangell Institute have been burnt
 - Ashes from burning debris have been scraped up and removed from the Institute site
- Sorted batteries, automotive and other metal debris and woody debris from the oversized material stockpile
 - Large rock and cobbles left over from this sorting effort were used as fill on-site
 - All metal debris has been loaded out into containers for disposal
- **NORTECH** conducted SWPPP inspections
 - Total rainfall since July 22 at the Site was measured at 2.7 inches
- Treated lead contaminated soil stockpile is completed
 - Final rock berm is in place

EXCELLENCE IN ENVIRONMENTAL & EMERGENCY SOLUTIONS



- Top cover liner is in place, with seams welded and rock placed around perimeter edges
- Decontaminated and demobilized heavy equipment as appropriate given Site progress
- Completed backfill and grading work on Goodwin property
- Completed backfill and grading on Byford Junkyard Site

Anticipated Project activities for the next week:

- Substantial Completion Inspection with ADEC
- SWPPP close out inspection and Notice of Termination filed

We trust this information is adequate to meet your needs. If you have any questions, please feel free to contact **NRC Alaska** or **NORTECH** at your convenience.

Sincerely,

NORTECH

Jason Ginter, PMP

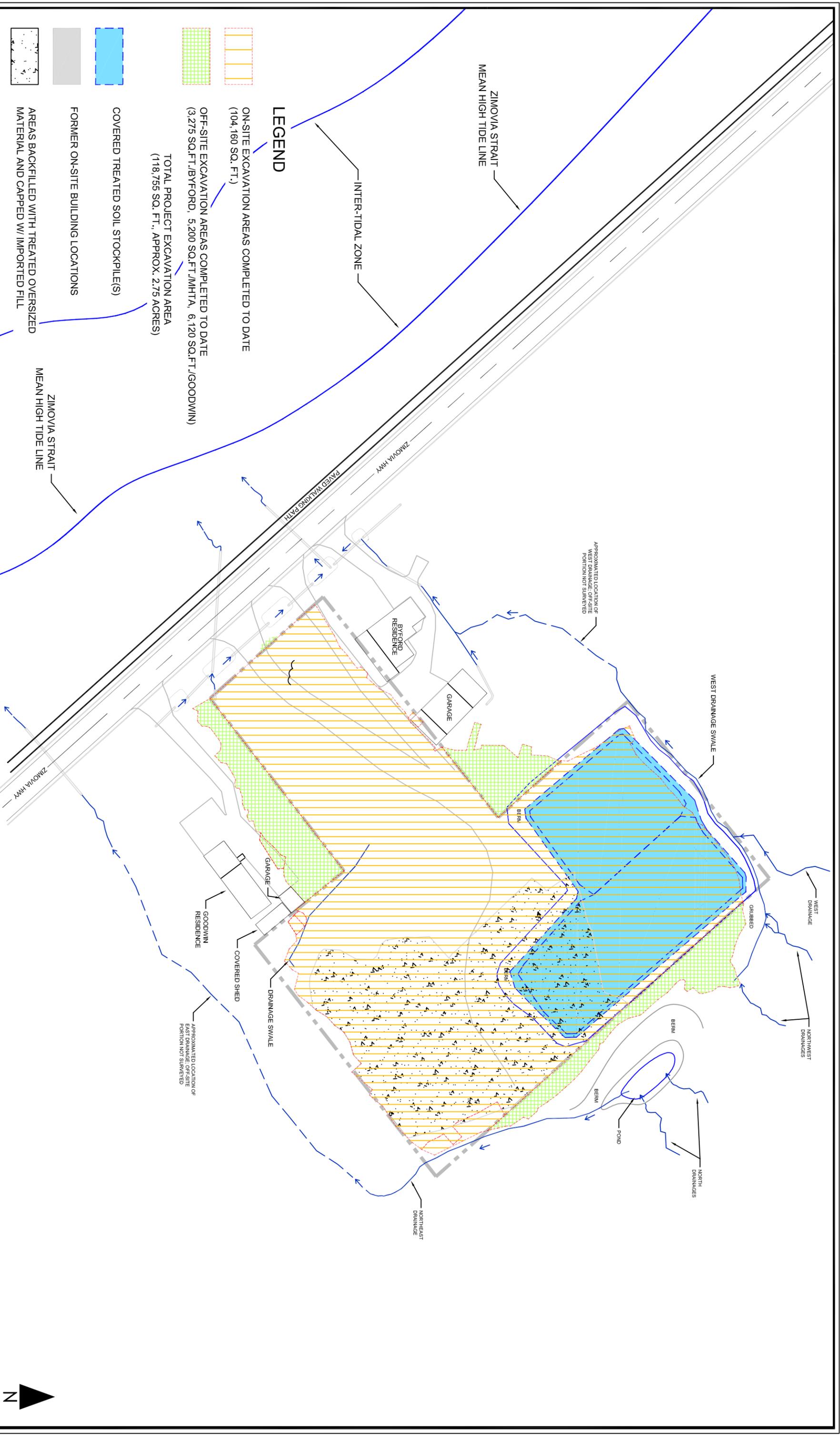
Principal, Juneau Technical Manager

Attachments: Site Progress photos

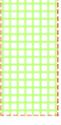
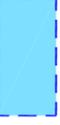
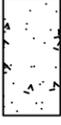
NRC Alaska

Dan Strucher

Sr. Project Manager



LEGEND

-  ON-SITE EXCAVATION AREAS COMPLETED TO DATE (104,160 SQ. FT.)
-  OFF-SITE EXCAVATION AREAS COMPLETED TO DATE (3,275 SQ.FT./BYFORD, 5,200 SQ.FT./MHTA, 6,120 SQ.FT./GOODWIN)
- TOTAL PROJECT EXCAVATION AREA (118,755 SQ. FT., APPROX. 2.75 ACRES)**
-  COVERED TREATED SOIL STOCKPILE(S)
-  FORMER ON-SITE BUILDING LOCATIONS
-  AREAS BACKFILLED WITH TREATED OVERSIZED MATERIAL AND CAPPED W/ IMPORTED FILL



SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY
 2400 College Road, Fairbanks, AK 99709 907-452-5688
 3105 Lakeshore Dr. Ste A106, Anchorage, AK 99517 907-222-2448
 5438 Shaurie Dr. Ste B, Juneau, AK 99901 907-586-6813

WORKING MAP (EXCAVATION(S) COMPLETED THROUGH JULY 27, 2016)
 WRANGELL JUNKYARD CLEANUP
 WRANGELL, ALASKA

DATE: 07/27/2016	SCALE: 1" = 75'
PROJ MGR: JLG	PROJECT: 15-1150
DRAWN: RJP	DWG. NO.: 151150(xxx)

FIGURE
 XX



Photo 1: Aerial view of Site 7/28/2016



Photo 2: Treated soil stockpile, covered and secured



Photo 3: Excavation area and backfill on Goodwin property, note property line boundary fence