

***Budney Overhaul & Repair, LTD.***  
***Budney Aerospace, Inc.***  
***131 New Park Drive***  
***P.O. Box 8158***  
***Berlin, CT 06037-8158***  
***Tel (860) 828-0585 Fax (860) 828-9506 / 2975***

August 5, 2016

Dennis Lawyer  
Nuclear Regulatory Commission  
Region I  
2100 Renaissance Blvd. Suite 100  
King of Prussia, PA 19406-2713

RE: License Termination Request  
Radioactive Materials License No. STB-1530  
Docket No. 04008974

Dear Mr. Lawyer,

I am writing in response to your email dated July 21, 2016 in which you requested additional information regarding Budney's request to terminate Radioactive Materials License STB-1530.

1. Decommissioning Records

- a) Radioactive materials possessed under Radiative Material License STB-1530 were only disposed of by transfer to authorized recipients as permitted by 10 CFR 20.2006. Licensed materials were never disposed of pursuant to 10 CFR 20.2002 (alternate disposal procedures, including burial authorized prior to January 28, 1981), 20.2003 (disposals to sanitary sewer system), 20.2004 (incineration of wastes), 20.2005 (disposal of specific wastes including liquid scintillation cocktail and animal tissue), and 20.2103(b)(4), evaluations of effluent releases.
- b) There were no recorded instances of unusual occurrences involving the spread of radioactive contamination in and around the facility, equipment or site. There are also no potentially contaminated piping systems at the facility.

As built drawings of the main building, the only area in which licensed radioactive material was machined under the license, are included with this letter. Radioactive waste packaged for off-site shipment was stored in a Sea-Land type shipping container located external to the facility.

2. As requested, two (2) random fixed-point surveys were performed in the waste storage container on July 27, 2016. A map identifying the storage locations is included with this letter. A 15-minute count was performed in contact with the floor at each location. The readings obtained were as follows:
  - a) Location 1: 3,069 counts = 205 cpm

***FAA Certified Repair Station #VZ5R293N***  
***EASA Certified Repair Station #EASA.145.4283***

***ISO 9001:2008 Certified***  
***AS 9100:2009 Certified***

**REC'D IN LAT 08/05/2016**

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- b) Location 2: 3,193 counts = 213 cpm
3. Upon review of the 1997 drawing, it was determined that random direct readings had not be obtained from the previous radioactive waste storage location. Therefore, two (2) random fixed-point surveys were performed in the old waste storage location on July 27, 2016. A map identifying the storage locations is included with this letter. A 15-minute count was performed in contact with the floor at each location. The readings obtained were as follows:
- a) Location 3: 4,589 counts = 306 cpm
- b) Location 4: 4,176 counts = 279 cpm
4. Scanning surveys were not initially performed of the facility. The radioactive material possessed under this license was in the form of natural thorium incorporated into a magnesium alloy at a maximum percentage of 3.9% by weight. Due to the low percentage of thorium in the metal, you would typically have to have a visual amount of metal present in order to obtain a reading with a portable survey meter.

After working on throiated components, the affected equipment and area were immediately cleared of residual metal filings. Since the facility machines aircraft engine components under FAA regulations, the floor areas of the facility are continuously swept down in order to prevent foreign object damage (FOD). Due to this and the fact that radiological surveys of the facility had never identified any and significant contamination issues, it was believed that scanning of the concrete floor was not necessary.

However, since additional readings had to the obtained at your request, it was decided that while the Health Physicist was on site, a partial scan of the floor areas would be performed in order to confirm the assumptions made above. This floor scan was performed on July 27, 2016 using a Ludlum 2241-2 with a 43-37 floor monitor.

**Survey Instrument Information**

Type of Measurement	Instrumentation		Bkgd. <sup>a</sup>	2 $\pi$ <sup>a</sup> Eff for Th-232	Minimum Detectable Concentration (MDC)
	Detector	Meter			
Scanning - $\beta$	Gas Prop. Det. Ludlum model 43-37	Count-rate meter <sup>b</sup> Ludlum mod. 2241-2	648 cpm	21.25%	784 dpm/100 cm <sup>2</sup>

The calibration certificate for this instrument was included with the initial report dated May 11, 2016.

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**EASA Certified Repair Station #EASA.145.4283**

**ISO 9001:2008 Certified**  
**AS 9100:2009 Certified**

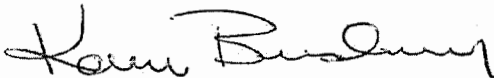
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By obtaining measurements in unaffected areas of the facility, the background of the floor monitor was determined to be 648 cpm. The Minimum Detectable Concentration (MDC) was determined to be 785 dpm/100 cm<sup>2</sup>. The MDC calculation is included as an attachment to this letter.

The readings obtained during the floor scan of the affected areas of the facility ranged between 580 cpm and 740 cpm. Therefore, the floor scan performed did not indicate the presence of any significant residual radioactive contamination at the facility.

I hope that I have provided you with all of the information required to terminate our radioactive material license. If you have any additional questions, please contact our health physics consultant, Mr. David Durkee, directly at (860) 887-1538.

Sincerely,



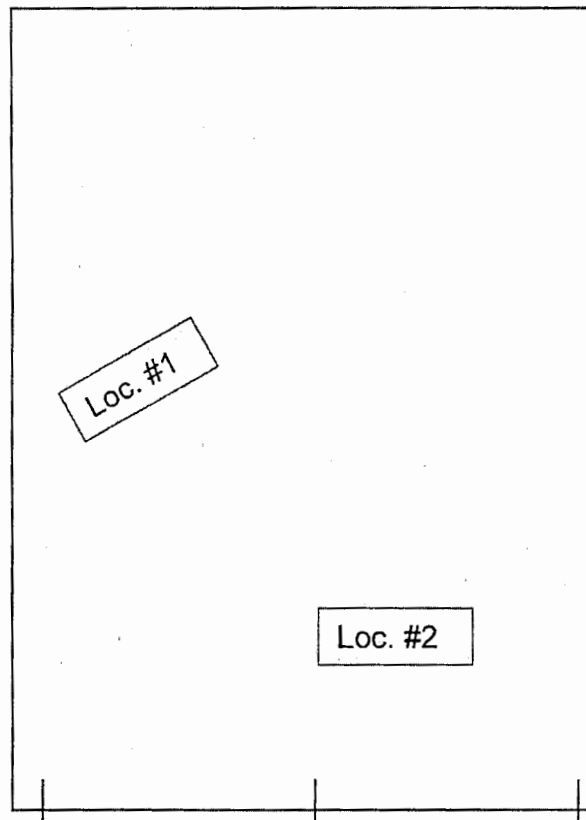
Kevin Budney  
President/Radiation Safety Officer

Enclosures: As-built drawings  
Fixed-measurement location maps  
MDC calculation

Budney Overhaul & Repair, Ltd.

Waste Storage Container

Fixed-measurement locations



## Minimum Detectable Concentration Calculation

Variables: MDC = Minimum Detectable Concentration in dpm/100 cm<sup>2</sup>  
R<sub>b</sub> = Background count rate in cpm  
E = Detector efficiency in cpm/dpm  
A = Active detector area in cm<sup>2</sup>  
X = Multiple of background audibly discernable to tech. as increase

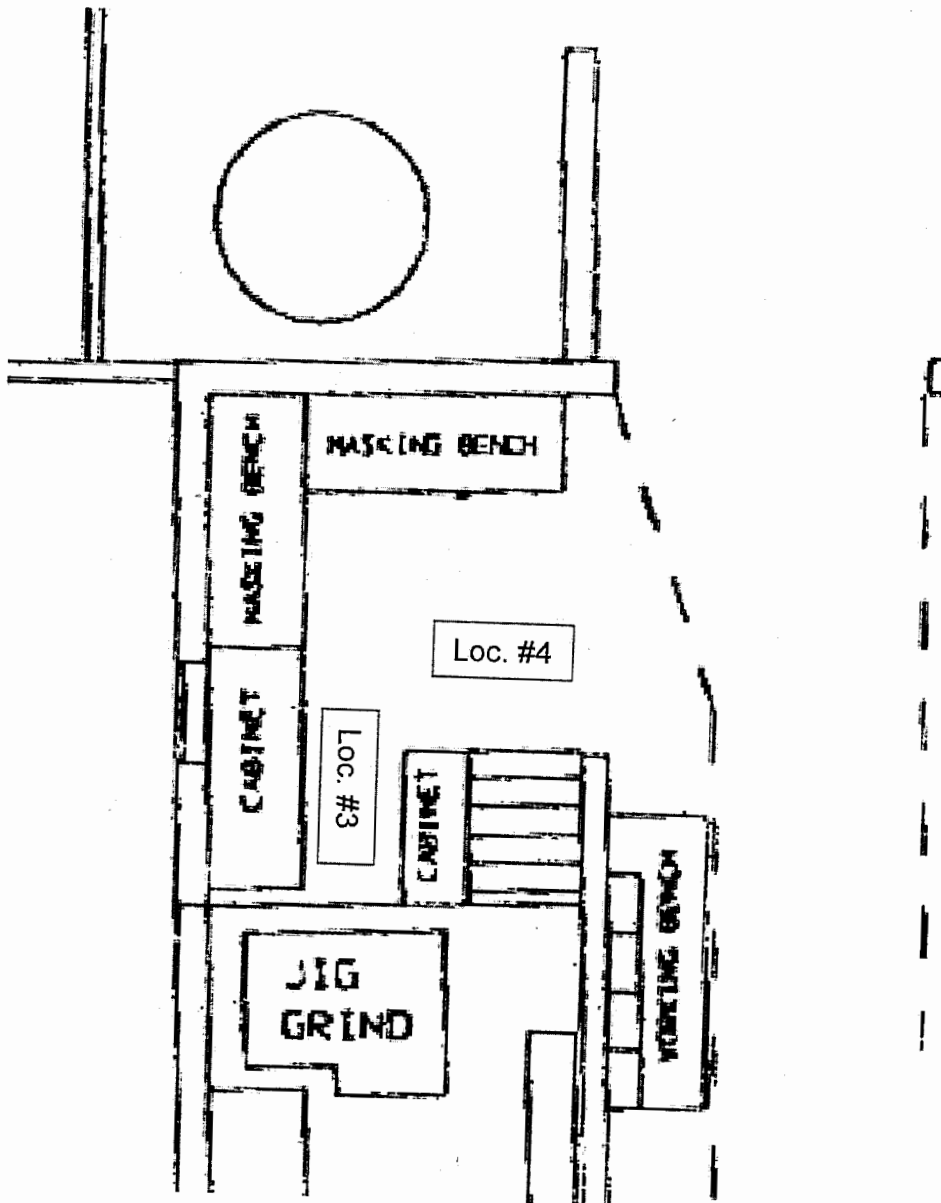
MDC for surface scans using Ludlum Model 43-37:

$$\text{MDC} = (X)(R_b) \div (E)(A/100)$$

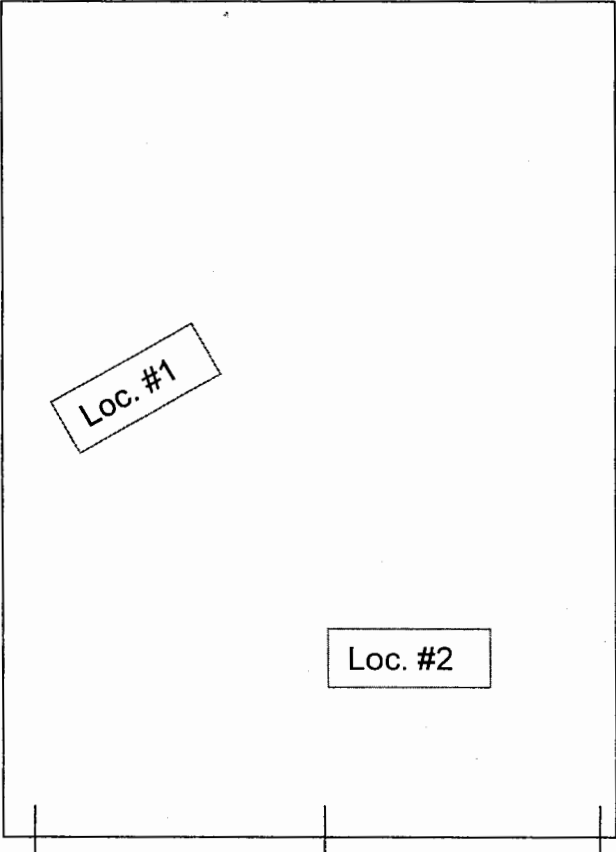
$$\text{MDC} = (1.5)(648 \text{ cpm}) \div (0.2125)(584/100)$$

$$\text{MDC} = 784 \text{ dpm}/100 \text{ cm}^2$$

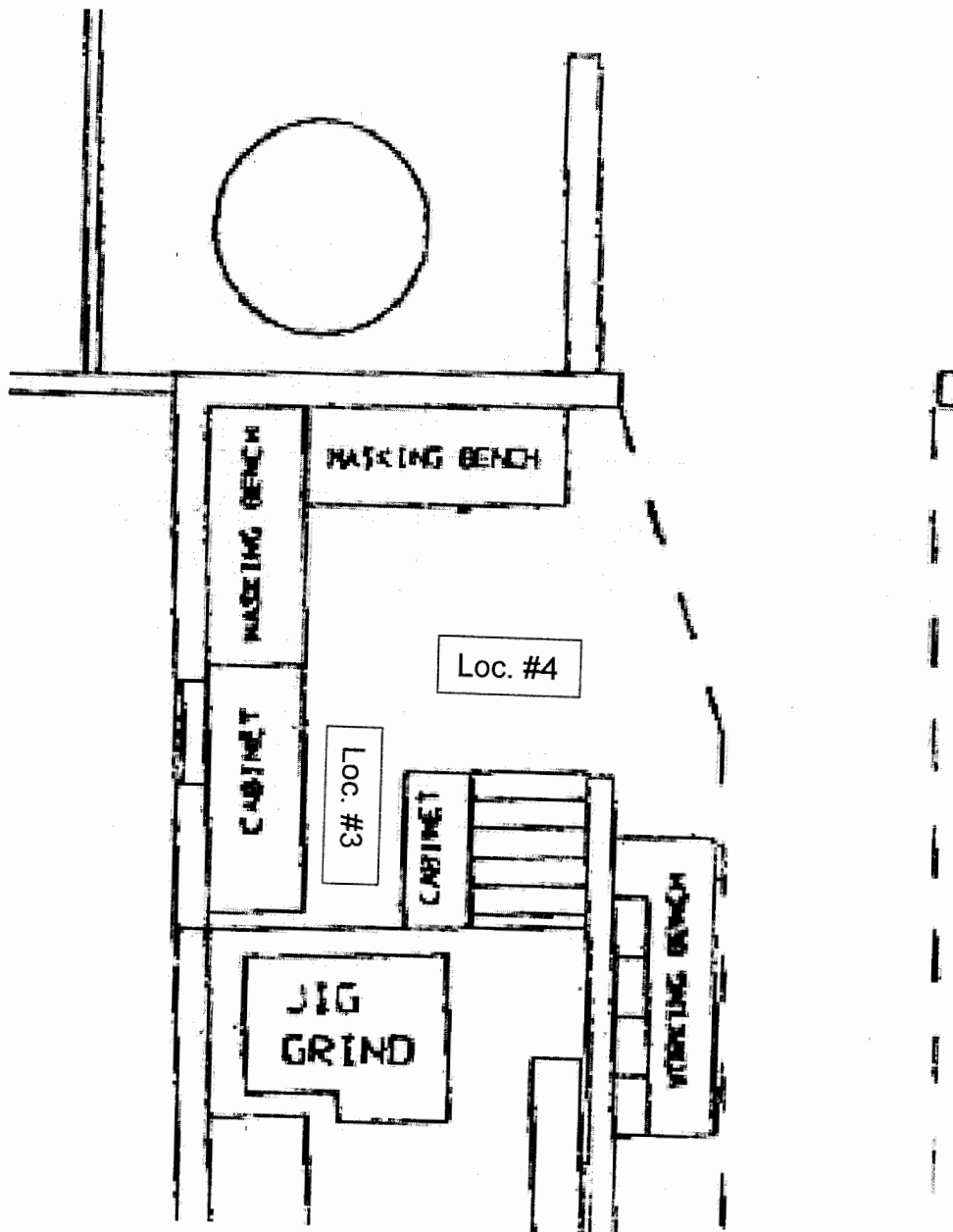
Budney Overhaul & Repair, Ltd.  
Old Rad Waste Storage Area  
Fixed-measurement locations



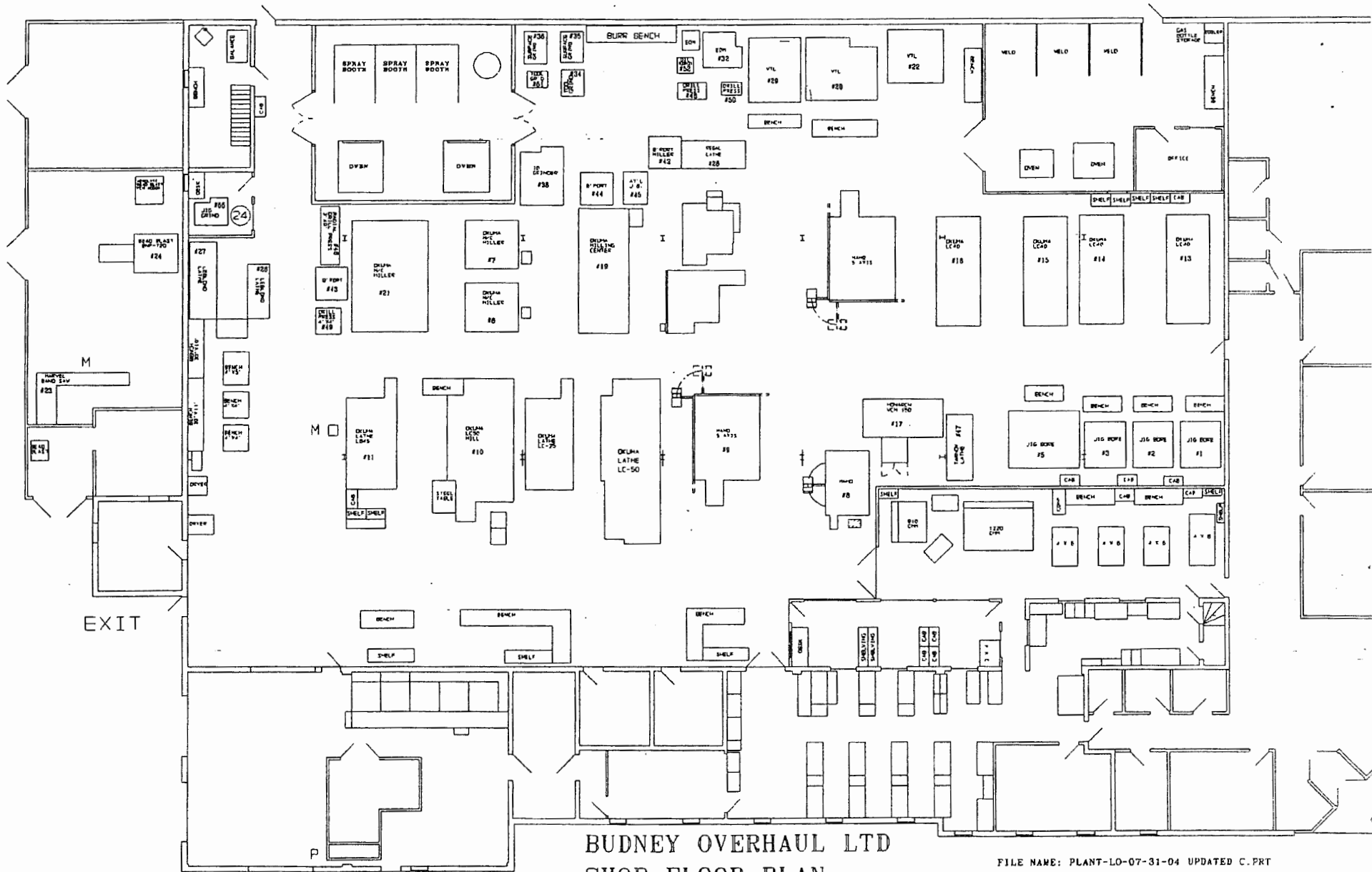
Budney Overhaul & Repair, Ltd.  
Waste Storage Container  
Fixed-measurement locations



Budney Overhaul & Repair, Ltd.  
Old Rad Waste Storage Area  
Fixed-measurement locations

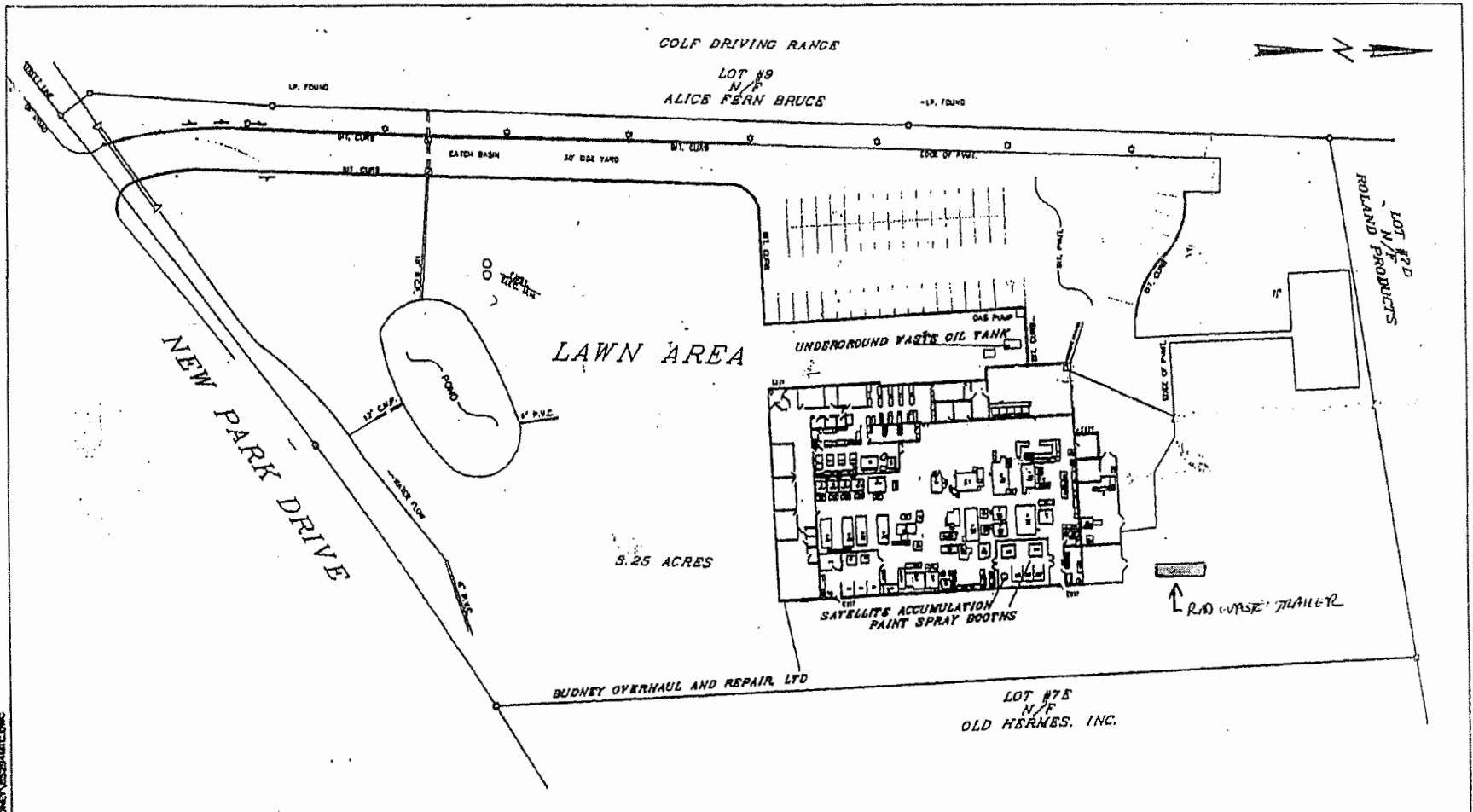







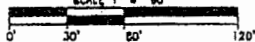
BUDNEY OVERHAUL LTD  
SHOP FLOOR PLAN


FILE NAME: PLANT-LO-07-31-04 UPDATED C.PRT



330 FILE NO. 85294 BUDNEY OVERHAUL AND REPAIR LTD

**NOTES:**  
 1) BASE MAP PROVIDED BY THE BONGIOVANNI GROUP, INC. LAND SURVEYORS OF NEWINGTON, CONNECTICUT. DRAWING TITLED "IMPROVEMENT LOCATION SURVEY PREPARED FOR BUDNEY OVERHAUL & REPAIR, LTD" DRAWING # 85294 DATED 4/22/87 AND REVISED 6/11/88.

 <b>GEOBISON</b> INCORPORATED <small>GEOTECHNICAL ENGINEERS - ENVIRONMENTAL CONSULTANTS          814 SOUTH MAIN ROAD - MIDDLETOWN, CONNECTICUT 06457          TELEPHONE: 861/719-6111 FACSIMILE: 861/719-8412</small>	<b>SITE PLAN</b> <b>BUDNEY OVERHAUL AND REPAIR, LTD</b> <b>131 NEW PARK DRIVE</b> <b>BERLIN, CONNECTICUT</b> <b>FILE No. 385-03</b>	
	<small>SCALE IN FEET</small> <small>SCALE 1" = 80'</small> 	<small>DATE: 4/03</small> <small>FIGURE NO. 2</small>
<small>DRAWN BY: AFC</small>	<small>REVIEWED BY: TFC</small>	

 - RAO WASTE STORAGE