Message

From: d'Almeida, Carolyn K. [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9EC4401AFA1846DD93D52A0DDA973581-CDALMEID]
Sent: 6/21/2016 7:55:05 PM
To: Henning, Loren [Henning.Loren@epa.gov]; Butler, Thomas [Butler.Thomas@epa.gov]
Subject: FW: 2016-6-21 - Williams AFB - FYI - ST012 - LNAPL removal versus possible remaining range - bstewart praxis -

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From: Wayne Miller [mailto:Miller.Wayne@azdeq.gov]
Sent: Tuesday, June 21, 2016 12:53 PM
To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>
Cc: Davis, Eva <Davis.Eva@epa.gov>
Subject: 2016-6-21 - Williams AFB - FYI - ST012 - LNAPL removal versus possible remaining range - bstewart praxis -

FYI - From Praxis –

Current AMEC estimates for remaining saturated zone NAPL = 255,000 gallons to 1,143,000 gallons AFTER SEE.

TOTAL Mass extraction/destruction estimate = **1,131,600 gallons** (excludes SVE Jan-Jun 2016)

The most recent estimates for LNAPL in the SATURATED zone were provided by Amec in the EBR work plan of March 2016, Table 2-1. Conservative Range of 973,000 to 1,546,000 gallons and Base Range of 658,000 to 1,024,000 gallons. Again, these are for the saturated zone ONLY and should be compared to the SEE total of 403,000 gallons.

See below for complete e-mail

From: Steve Willis [mailto:steve@uxopro.com]
Sent: Tuesday, June 21, 2016 12:28 PM
To: Bo Stewart <Bo@praxis-enviro.com>
Cc: Wayne Miller <Miller.Wayne@azdeq.gov>
Subject: 2016-6-21 - Williams AFB -ST012 - LNAPL removal versus possible remaining range - bstewart praxis -

Thanks Bo. Wayne, see below.

Steven A. Willis, R.G.
UXO Pro, Inc.
Arizona Registered Geologist #30448
(480) 316-3373
steve@uxopro.com

----- Original Message -----
From: Bo Stewart <Bo@praxis-enviro.com>
To: Steve Willis <steve@uxopro.com>
Sent: Tuesday, June 21, 2016 12:20:23 PM
Subject: Re: FWD: 2016-6-21 - Williams AFB - request LNAPL removal clarification -

Hi Steve,

Mass extraction/destruction estimates are as follows:

All Activities 1990 thru Dec 2011 = 671,000 gallons

SVE 2012 to 2015 = 57,600 gallons

SEE thru Apr 2016 = 403,000 gallons (6.57 lbs per gallons equivalent)

TOTAL = 1,131,600 gallons (excludes SVE Jan-Jun 2016)

This total mass is combined from both the vadose zone and saturated zone.

The most recent estimates for LNAPL in the SATURATED zone were provided by Amec in the EBR work plan of March 2016, Table 2-1. Conservative Range of 973,000 to 1,546,000 gallons and Base Range of 658,000 to 1,024,000 gallons. Again, these are for the saturated zone ONLY and should be compared to the SEE total of 403,000 gallons. Hence, **current estimates for the remaining NAPL in the saturated zone are 255,000 gallons to 1,143,000 gallons AFTER SEE**.

On 6/21/2016 9:34 AM, Steve Willis wrote:

> Do you have the correct numbers available for ST012 to confirm those cited below? I think I can find them, but I figured you may have them at hand.
>
> Thanks,
>
> *Steven A. Willis, R.G.*
> *UXO Pro, Inc.*
> *Arizona Registered Geologist #30448*
> *(480) 316-3373*
> *steve@uxopro.com*

----- Original Message -----
From: Wayne Miller <Miller.Wayne@azdeq.gov>
To: Carolyn dAlmeida (dAlmeida.Carolyn@epamail.epa.gov) <dAlmeida.Carolyn@epamail.epa.gov>
Cc: steve <steve@uxopro.com>
Sent: Tuesday, June 21, 2016 9:32:37 AM
Subject: 2016-6-21 - Williams AFB - request LNAPL removal clarification -

Am I way off base on the below numbers? 1,066,271 gallons remediated of 2,200,000 gallons released.

I have not received USAF response, but I believe Cathy has been tied up.

From: Wayne Miller
Sent: Wednesday, June 15, 2016 5:28 PM

To: 'JERRARD, CATHERINE V GS-13 USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>
Cc: steve <steve@uxopro.com>
Subject: 2016-6-15 - Williams AFB - request LNAPL removal clarification -

Can you please clarify the JP-4/AVGAS quantity (gallons) removed via remedial actions? Was requested to find simple quantity answer.

So…1,066,271 gallons remediated of 2,200,000 gallons released?

The most recent estimate of LNAPL volume in the saturated zone of 2,200,000 gallons was established in 2008 prior to the TEE Pilot Test (BEM, 2011). [From ST012 RODA; dated Sept 2013; Section 3.2.3 LNAPL at ST012; page 3-5]

Since 1990 … approximately 671,000 gallons of fuel have been removed from the site… [From ST012 RODA; dated Sept 2013; Section 3.2.4 Contaminant Removal; page 3-6]

Presume the 2,648,316 lbs converts to 395,271 gallons. [5/18/2016 BCT call; Site ST012 SEE System Status Summary (through 29 April); page 4 - Total Vapor and Liquid Mass Removal (based on PID readings)]

Thanks.

Wayne Miller

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Waste Programs Division,

Remedial Projects Section,

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Lloyd "Bo" Stewart, PhD, PE
Praxis Environmental Tech., Inc.

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