Message (Digitally Signed)

From: JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW [catherine.jerrard@us.af.mil]
Sent: 7/22/2019 7:20:47 PM
To: D'Almeida, Carolyn [dAlmeida.Carolyn@epa.gov]; Smallbeck, Donald R. [donald.smallbeck@woodplc.com]; Davis, Eva [Davis.Eva@epa.gov]; 'Wayne Miller' [Miller.Wayne@azdeq.gov]; Pearson, Stuart C. [stuart.pearson@woodplc.com]
CC: d p [DPope@css-dynamac.com]; GANGNUSS, GREGORY G GS-14 USAF HAF AFCEC/CIBP [gregory.gangnuss@us.af.mil]; Nicole Goers [Nicole.Goers@TechLawInc.com]; 'Brasaemle, Karla' [KBrasaemle@TechLawInc.com]; 'Rohrbaugh, Amanda' [ARohrbaugh@TechLawInc.com]; 'Bo Stewart' [bo@praxis-enviro.com]; William Hughes [William.Hughes@cn-bus.com]; 'steve@uxopro.com' [steve@uxopro.com]; 'Jennings, Eleanor' [Eleanor.Jennings@parsons.com]; 'Panzino.Paula@azdeq.gov' [Panzino.Paula@azdeq.gov]
Subject: RE: ST012 Site Activities
Attachments: smime.p7s

Carolyn-

The June BCT slides presented the CZ23 results versus time on slide 26. Slide 27 outlined the equipment information and the plan to start extracting unless the June results were significantly reduced. Updated information was provided in the site activities email below and we will include information in this week's BCT call too.

Thanks.

Cathy

//SIGNED//
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From: D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>
Sent: Monday, July 22, 2019 1:37 PM
To: Smallbeck, Donald R. <donald.smallbeck@woodplc.com>; Davis, Eva <Davis.Eva@epa.gov>; JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; Pearson, Stuart C. <stuart.pearson@woodplc.com>
Cc: d p <DPope@css-dynamac.com>; GANGNUSS, GREGORY G GS-14 USAF HAF AFCEC/CIBP <gregory.gangnuss@us.af.mil>; Nicole Goers <Nicole.Goers@TechLawInc.com>; 'Brasaemle, Karla' <KBrasaemle@TechLawInc.com>; 'Rohrbaugh, Amanda' <ARohrbaugh@TechLawInc.com>; 'Bo Stewart' <bo@praxis-enviro.com>; William Hughes <William.Hughes@cn-bus.com>; 'steve@uxopro.com' <steve@uxopro.com>; 'Jennings, Eleanor' <Eleanor.Jennings@parsons.com>; 'Panzino.Paula@azdeq.gov' <Panzino.Paula@azdeq.gov>
Subject: [Non-DoD Source] RE: ST012 Site Activities

I'm back from vacation and reading this thread.. Are you extracting to remedy the prior loss of containment?

Carolyn d'Almeida

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1337 South 46th Street, Building 201
Richmond, CA 94804
(415) 972-3150

"We can evade reality, but we cannot evade the consequences of evading reality." - Ayn Rand

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From: Smallbeck, Donald R. [mailto:donald.smallbeck@woodplc.com]
Sent: Tuesday, July 16, 2019 11:18 AM
To: Davis, Eva <Davis.Eva@epa.gov>; 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C. <stuart.pearson@woodplc.com>
Cc: d p <DPope@css-dynamac.com>; GANGNUSS, GREGORY G GS-14 USAF HAF AFCEC/CIBP <gregory.gangnuss@us.af.mil>; Nicole Goers <Nicole.Goers@TechLawInc.com>; 'Brasaemle, Karla' <KBrasaemle@TechLawInc.com>; 'Rohrbaugh, Amanda' <ARohrbaugh@TechLawInc.com>; 'Bo Stewart' <bo@praxis-enviro.com>; William Hughes <William.Hughes@cn-bus.com>; 'steve@uxopro.com' <steve@uxopro.com>; 'Jennings, Eleanor' <Eleanor.Jennings@parsons.com>; 'Panzino.Paula@azdeq.gov' <Panzino.Paula@azdeq.gov>
Subject: RE: ST012 Site Activities

Balancing the pumping rate versus aquifer recharge to maximize pumping output, i.e minimize surging.

From: Davis, Eva <Davis.Eva@epa.gov>
Sent: Tuesday, July 16, 2019 10:55 AM
To: Smallbeck, Donald R. <donald.smallbeck@woodplc.com>; 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C. <stuart.pearson@woodplc.com>
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Subject: RE: ST012 Site Activities

How are you optimizing the extraction rate – can you expand on that?

From: Smallbeck, Donald R. <donald.smallbeck@woodplc.com>
Sent: Tuesday, July 16, 2019 12:09 PM
To: Davis, Eva <Davis.Eva@epa.gov>; 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C. <stuart.pearson@woodplc.com>
Cc: d p <DPope@css-dynamac.com>; GANGNUSS, GREGORY G GS-14 USAF HAF AFCEC/CIBP <gregory.gangnuss@us.af.mil>; Nicole Goers <Nicole.Goers@TechLawInc.com>; 'Brasaemle, Karla' <KBrasaemle@TechLawInc.com>; 'Rohrbaugh, Amanda' <ARohrbaugh@TechLawInc.com>; 'Bo Stewart' <bo@praxis-enviro.com>; William Hughes <William.Hughes@cn-bus.com>; 'steve@uxopro.com' <steve@uxopro.com>; 'Jennings, Eleanor' <Eleanor.Jennings@parsons.com>; 'Panzino.Paula@azdeq.gov' <Panzino.Paula@azdeq.gov>
Subject: RE: ST012 Site Activities

Eva

The initial and current pumping rate is approximately 6 gpm. We are continuing to optimize the extraction rate for CZ23.

From: Davis, Eva <Davis.Eva@epa.gov>
Sent: Tuesday, July 16, 2019 8:46 AM
To: Smallbeck, Donald R. <donald.smallbeck@woodplc.com>; 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C. <stuart.pearson@woodplc.com>
Cc: d p <DPope@css-dynamac.com>; GANGNUSS, GREGORY G GS-14 USAF HAF AFCEC/CIBP <gregory.gangnuss@us.af.mil>; Nicole Goers <Nicole.Goers@TechLawInc.com>; 'Brasaemle, Karla' <KBrasaemle@TechLawInc.com>; 'Rohrbaugh, Amanda' <ARohrbaugh@TechLawInc.com>; 'Bo Stewart' <bo@praxis-enviro.com>; William Hughes <William.Hughes@cn-bus.com>; 'steve@uxopro.com' <steve@uxopro.com>; 'Jennings, Eleanor' <Eleanor.Jennings@parsons.com>; 'Panzino.Paula@azdeq.gov' <Panzino.Paula@azdeq.gov>
Subject: RE: ST012 Site Activities

Hi Don – what's the pumping rate at CZ23? Glad to see it is up and running - Eva

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From: Smallbeck, Donald R. <donald.smallbeck@woodplc.com>
Sent: Tuesday, July 16, 2019 10:25 AM
To: 'JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW' <catherine.jerrard@us.af.mil>; 'Wayne Miller' <Miller.Wayne@azdeq.gov>; D'Almeida, Carolyn <dAlmeida.Carolyn@epa.gov>; Pearson, Stuart C. <stuart.pearson@woodplc.com>
Cc: d p <DPope@css-dynamac.com>; Davis, Eva <Davis.Eva@epa.gov>; GANGNUSS, GREGORY G GS-14 USAF HAF AFCEC/CIBP <gregory.gangnuss@us.af.mil>; Nicole Goers <Nicole.Goers@TechLawInc.com>; 'Brasaemle, Karla' <KBrasaemle@TechLawInc.com>; 'Rohrbaugh, Amanda' <ARohrbaugh@TechLawInc.com>; 'Bo Stewart' <bo@praxis-enviro.com>; William Hughes <William.Hughes@cn-bus.com>; 'steve@uxopro.com' <steve@uxopro.com>; 'Jennings, Eleanor' <Eleanor.Jennings@parsons.com>; 'Panzino.Paula@azdeq.gov' <Panzino.Paula@azdeq.gov>
Subject: ST012 Site Activities

Activities from 6/3/2019 through 7/12/2019

- SVE Operation
- LNAPL checks
- Completed repairs on non-operational pumps
- Finished installation of CZ23 pump. Pumping at CZ23 started on 7/11/19. Sampled 1 day after start up.
- Implemented plumbing repairs on activated carbon
- Installed and started up a new influent flow meter
- Continued extraction and treatment ~50 gpm, ~20 million total gallons treated since startup of EBR extraction.
- Operating Extraction Wells: CZ07, CZ21, UWBZ21, UWBZ26, UWBZ30, LSZ09, LSZ11, LSZ12, LSZ23, LSZ37, LSZ38
- Extraction Wells Down: none
- Discontinued Extraction: UWBZ27, LSZ39 (baseline, non-pumping samples collected ~2 weeks after shutdown)
- Continued quarterly GW sampling
- Injections:
    - UWBZ34: 4.3 tons 6/5, 3.9 tons 6/10, 1.3 tons 6/14, 1.5 tons 6/17, 2.0 tons 6/18, 2.9 tons 6/19, 2.7 tons 6/20
    - UWBZ36: 2.6 tons 6/5, 3.2 tons 6/6, 3.0 tons 6/10, 1.5 tons 6/14, 1.5 tons 6/17, 0.7 tons 6/18,
    - UWBZ35: 1.2 tons 6/20, 4.0 tons 6/21, 1.9 tons 6/24, 3.3 tons 6/25, 1.7 tons 6/26, 1.5 tons 6/27,0.9 tons 6/28, 1.8 tons 7/1, 2.0 tons 7/2
    - W11: 1.7 tons 6/25, 1.6 tons 6/26, 14.2 tons 6/27, 0.8 tons 6/28
    - LSZ47: 0.2 tons 7/3, 0.3 tons 7/8, 5.3 tons 7/9, 0.2 tons 7/10, 2.3 tons 7/11
    - LSZ48: 0.8 tons 7/3, 1.5 tons 7/8, 1.0 tons 7/9, 1.0 tons 7/10, 3.6 tons 7/1

This week (7/15-7/19)

- SVE Operation
- Continue extraction
- Finish quarterly GW sampling
- Continue injecting sulfate.

Next Week (7/22-7/26)

- SVE Operation
- LNAPL checks
- Continue extraction
- Continue Injecting sulfate

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