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DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION HAWAII
850 TICONDEROGA ST STE 110
JBPHH, HAWAII 96860-5101

5090
Ser N45/0521
June 15, 2017

CERTIFIED NO: 7016 0910 0001 0900 0077

Mr. Richard Takaba
Hawaii State Department of Health
Environmental Management Division
Solid and Hazardous Waste Branch
Underground Storage Tank Section
919 Ala Moana Boulevard, Room 212
Honolulu, HI 96814

Dear Mr. Takaba:

SUBJECT: RED HILL TANK COMPLEX
SOIL VAPOR SAMPLING RESULTS FOR MAY 2017
DOH FACILITY ID NO. 9-102271
DOH RELEASE ID NO. 990051, 010011, 020028, AND 140010

Soil vapor samples were collected from beneath all active and accessible Red Hill tanks on May 26, 2017.

Soil vapor VOC concentrations were measured in the field using a photo-ionization detector. The soil vapor sampling results are being submitted as Enclosure 1.

A conservative approach is to assess the integrity of the associated tank system if VOC concentrations exceed 280,000 ppbv in soil vapor monitoring points (SVMPs) beneath tanks containing JP-5 or JP-8, or 14,000 ppbv in SVMPs beneath tanks containing marine diesel fuel. These values are 50 percent of the calculated vapor concentration from fuel-saturated water.

At Tank 5, the concentrations of VOCs detected in the front, middle, and outer edge soil vapor monitoring probes were 79,537 ppbv, 22,097 ppbv, and 35,480 ppbv, respectively. bTank 5 was emptied in January 2014 and has not contained fuel since that time. VOC concentrations in all down-gradient soil vapor monitors were below 1,750 ppbv.

All other VOC concentrations measured in May were about 20 to 680 times below the action levels, with no consistent trends observed. Possible reasons for the results are speculative and may include, but not be limited to, ongoing projects in the tunnel, groundwater level fluctuations, rainfall (or lack thereof), and fuel movement in the tanks and piping.

Soil vapor VOC concentration trends will continue to be monitored. The next soil vapor sampling event is scheduled for June 2017, and will include collecting samples from soil vapor monitoring probes beneath all active and accessible tanks.

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If there are any questions regarding this matter, or if more information is needed, please contact Mr. Melvin Muraoka at (808) 471-3869.

Sincerely,

AARON Y. POENTIS
Director
Regional Environmental Department
By direction of the
Commander

Enclosure: 1. Summary of Soil Vapor Sampling Results for Tanks 2 through 18 and 20 through May 2017 (18 pages)

Copy to: Mr. Bob Pallarino, U.S. EPA Region 9, Underground Storage Tank Program Office
Mr. John Floyd, NAVSUP FLC Pearl Harbor
Mr. Rockne Krill, DLA Energy Pacific

ED_006532_00005435-00002

Figure 1
Soil Vapor Measurements
SV02

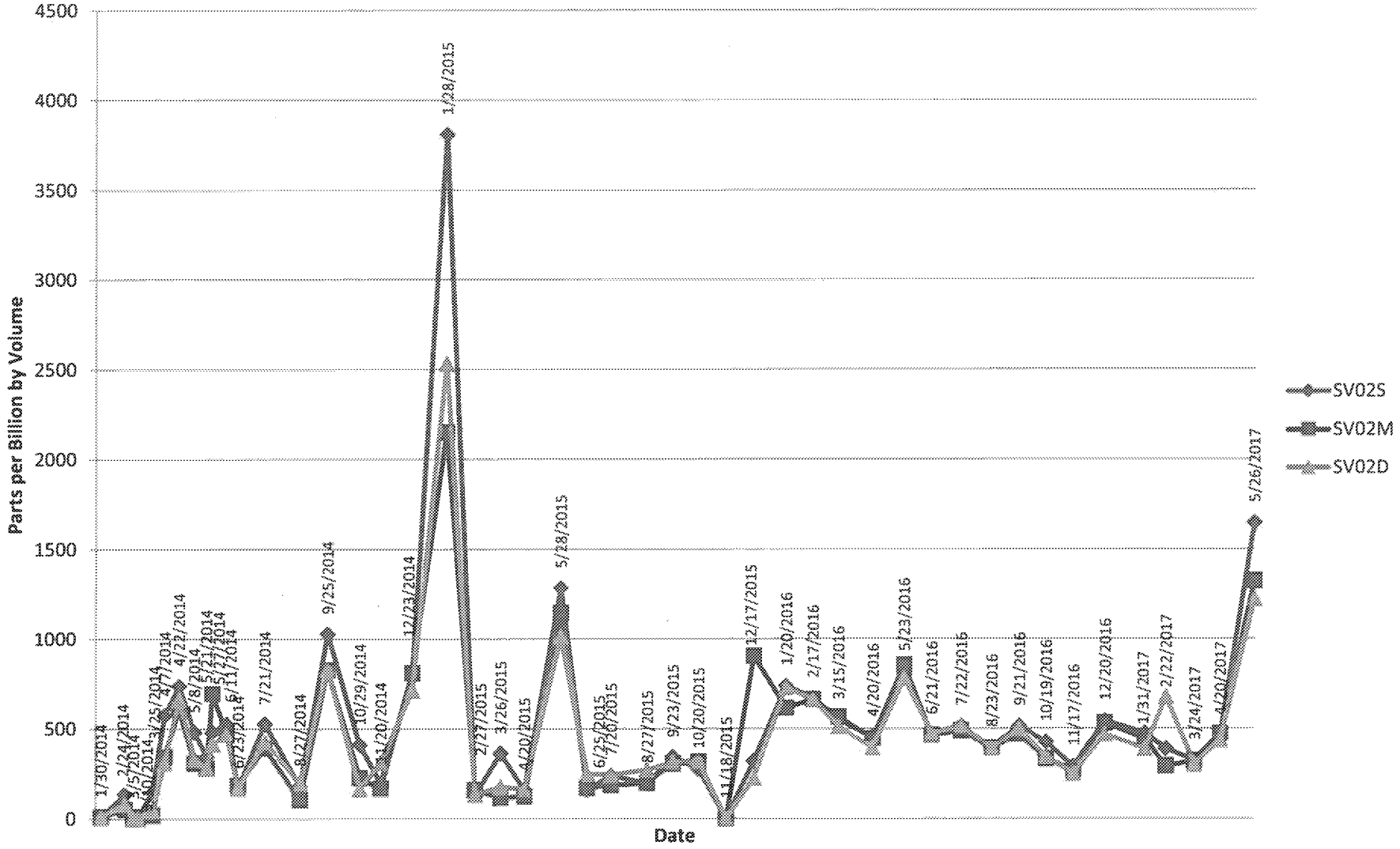

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Figure 2
Soil Vapor Measurements
SV03

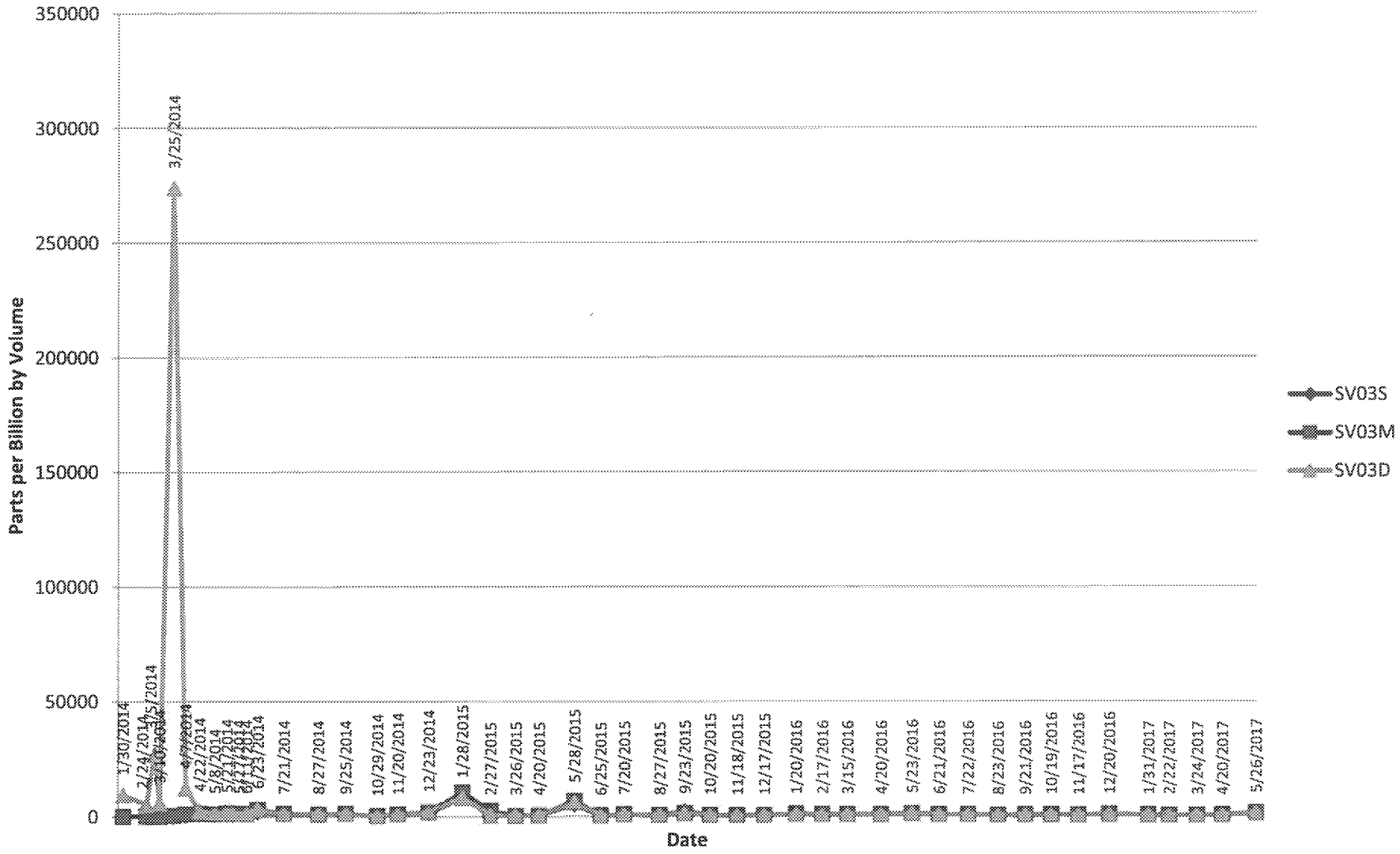

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Figure 3
Soil Vapor Measurements
SV04

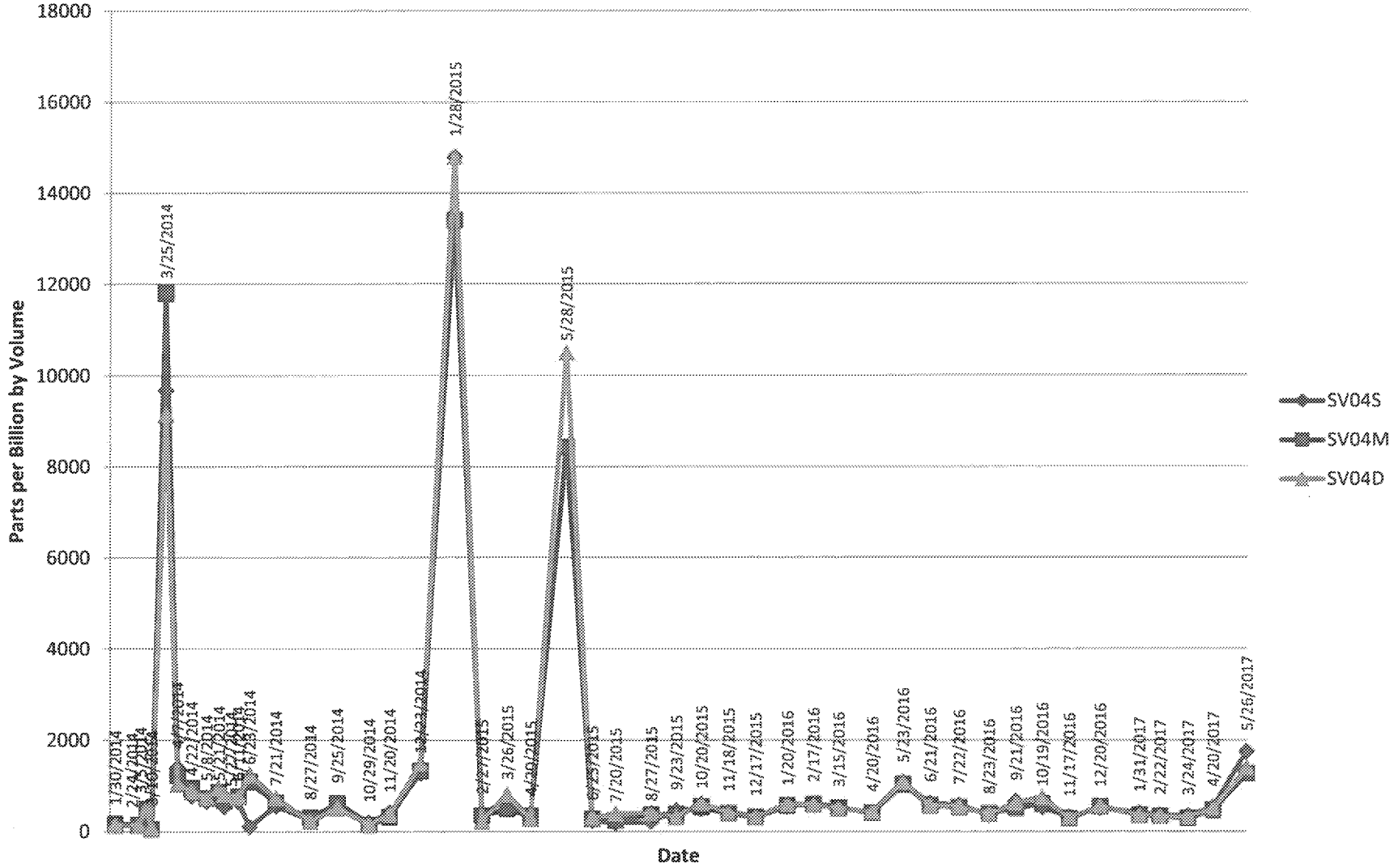

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Figure 4
Soil Vapor Measurements
SV05

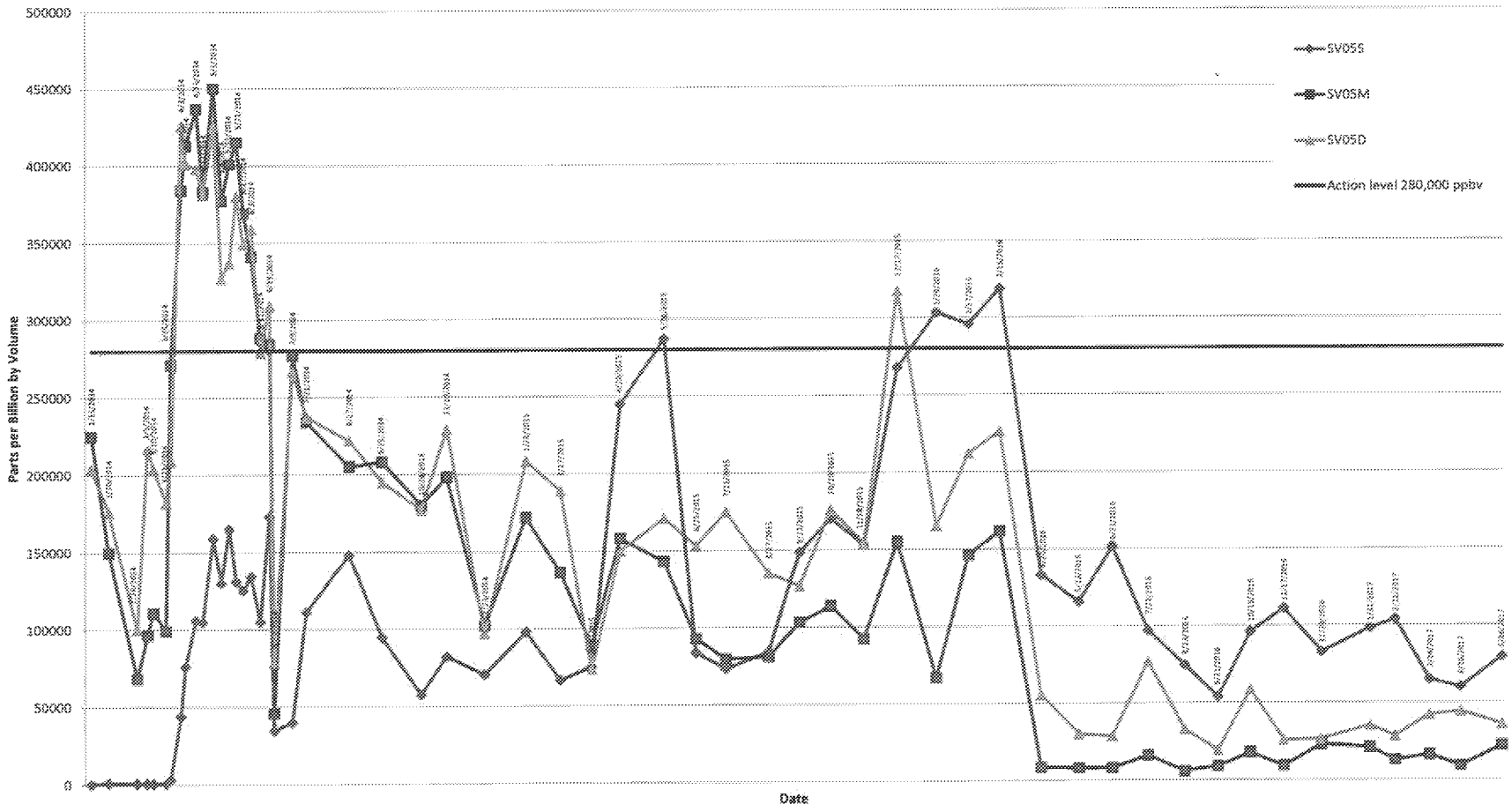

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Figure 5
Soil Vapor Measurements
SV06

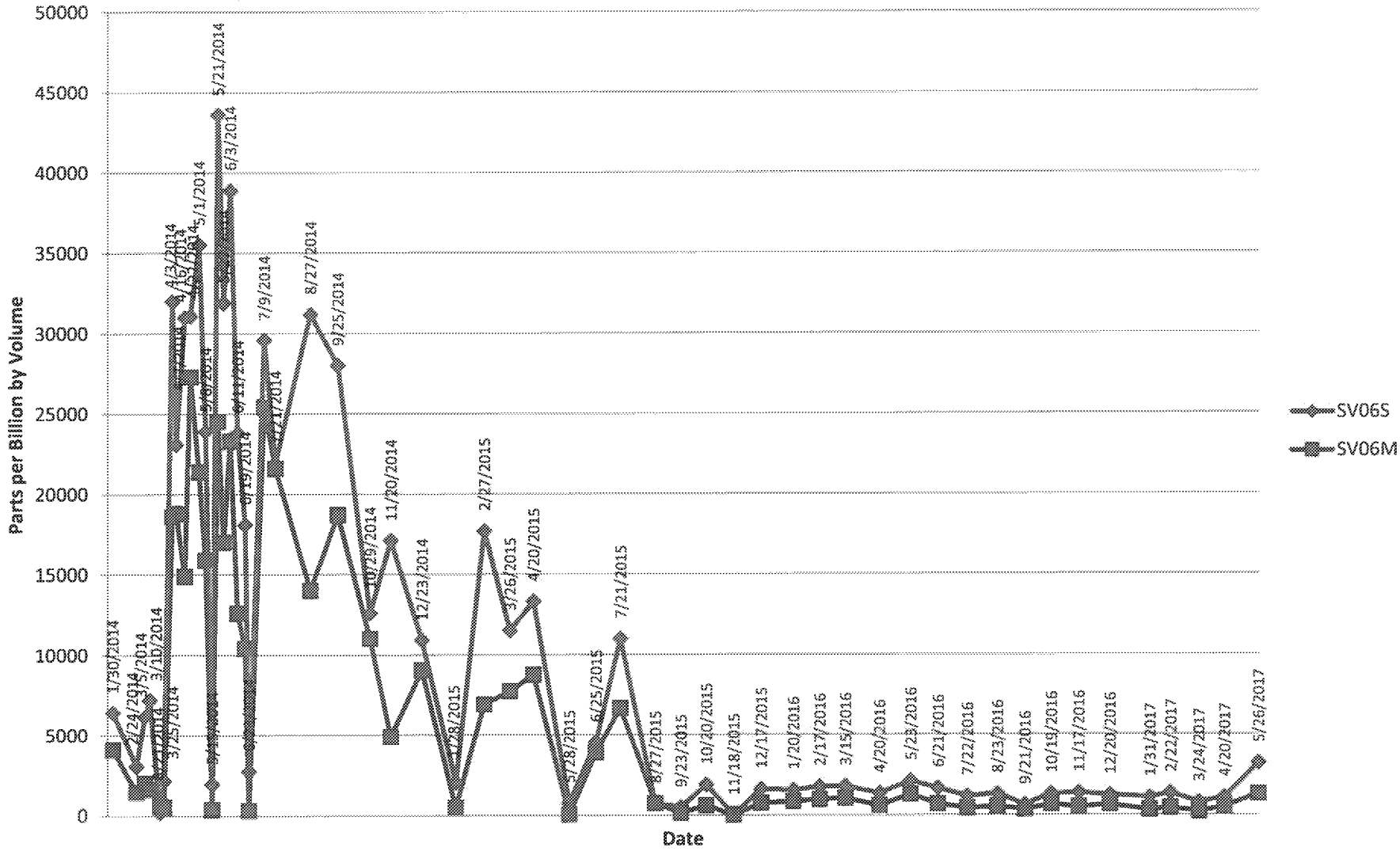

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Figure 6
Soil Vapor Measurements
SV07

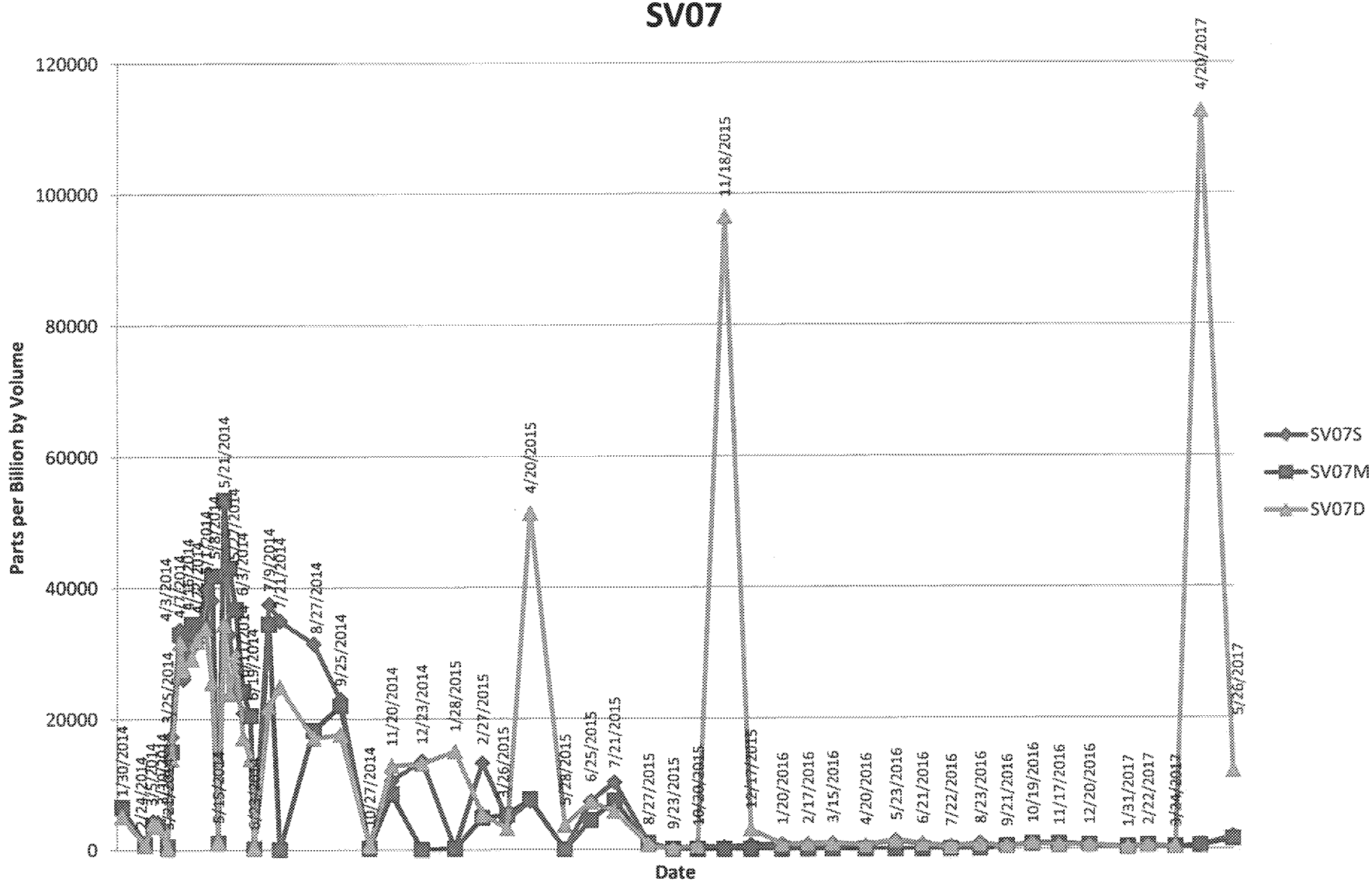

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Figure 7
Soil Vapor Measurements
SV08

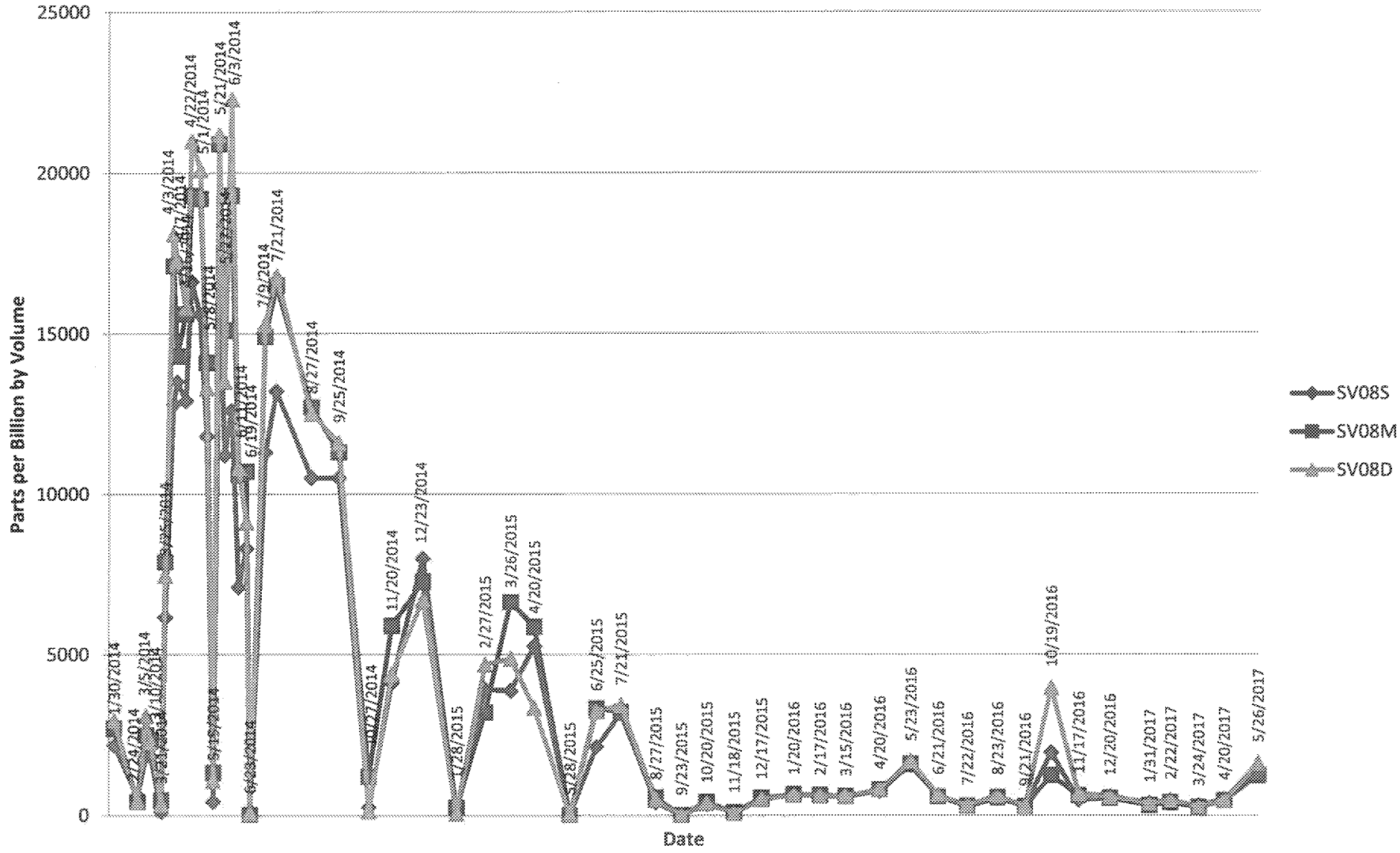

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Figure 8
Soil Vapor Measurements
SV09

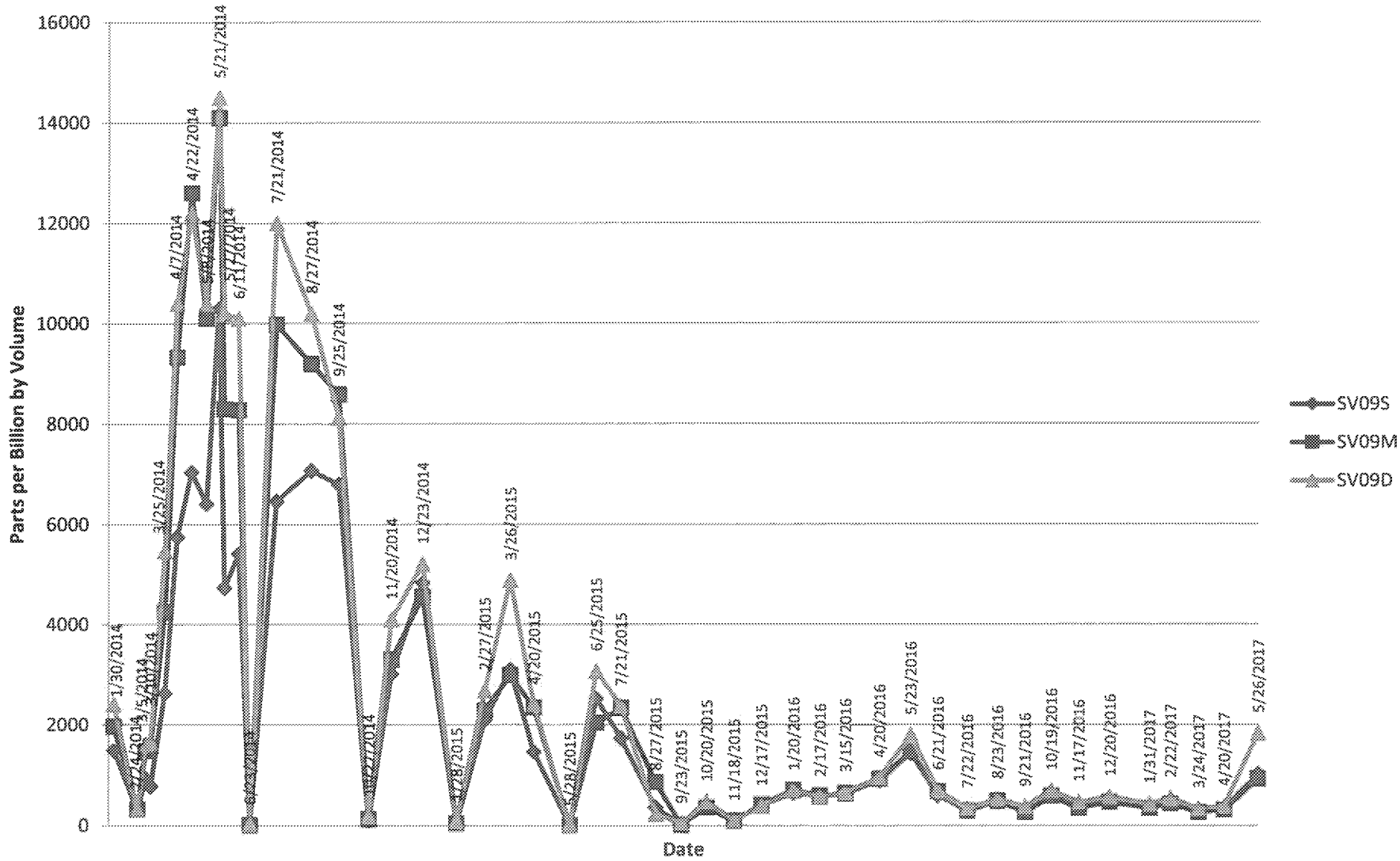

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Figure 9
Soil Vapor Measurements
SV10

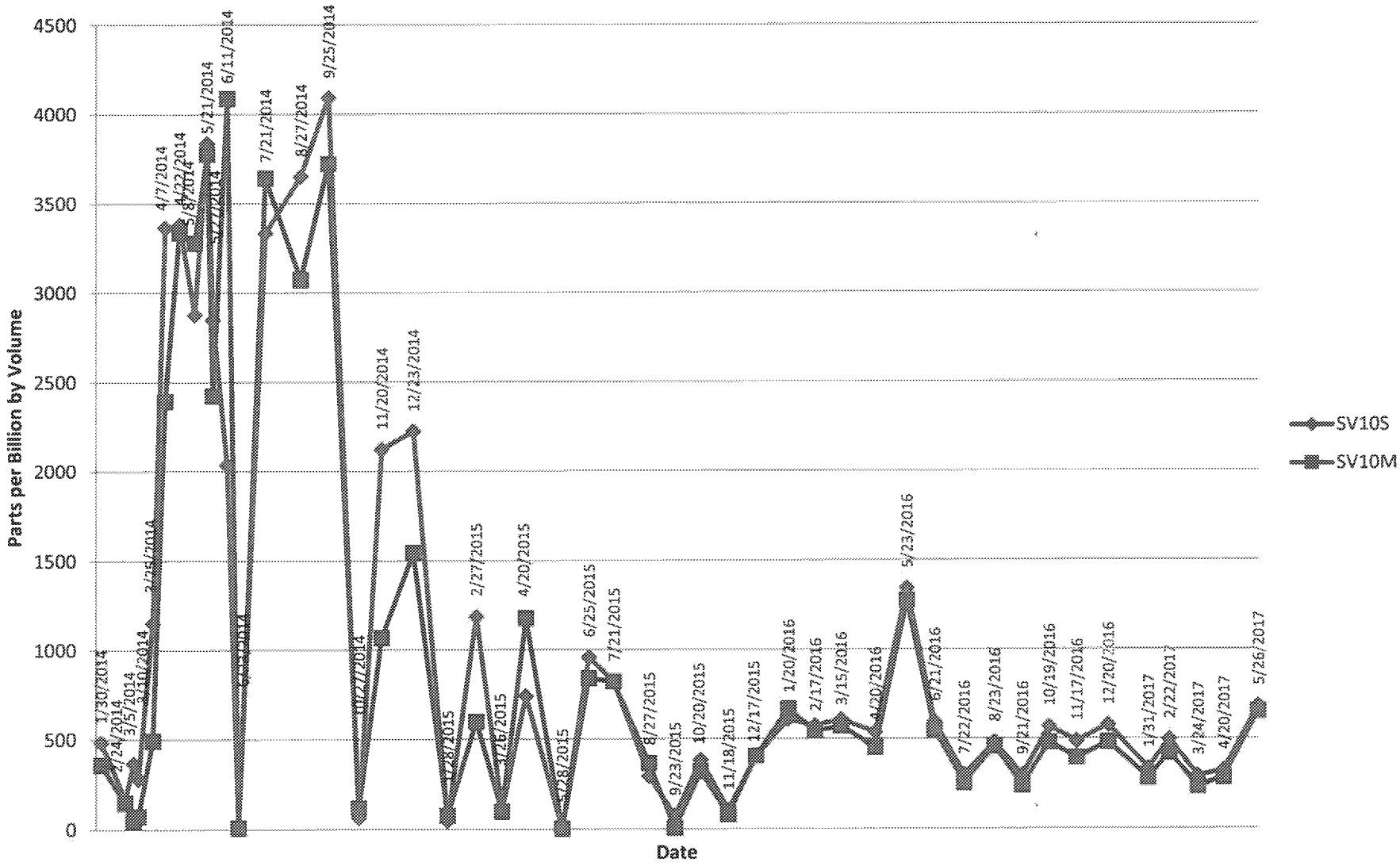

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Figure 10
Soil Vapor Measurements
SV11

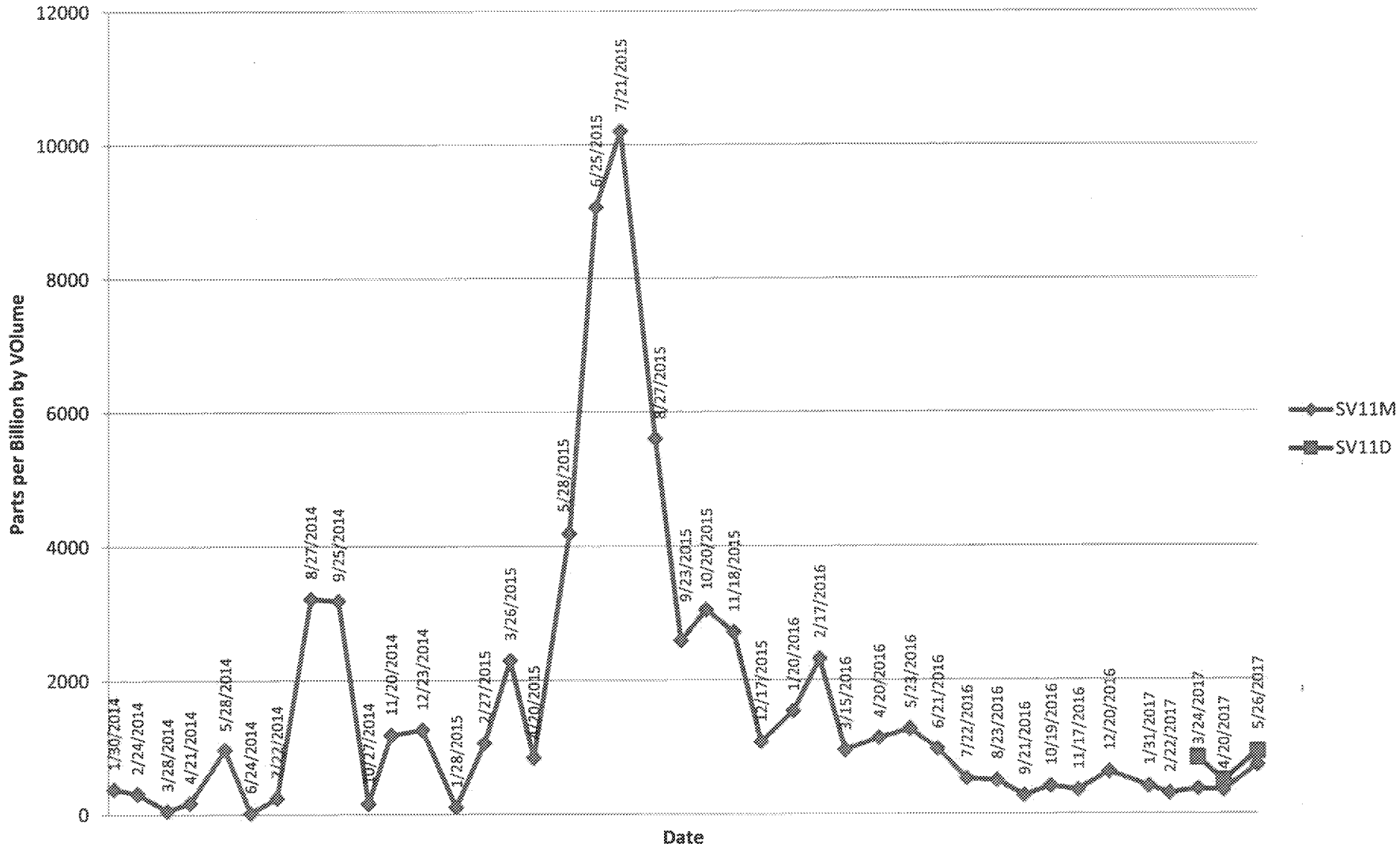

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Figure 11
Soil Vapor Measurements
SV12

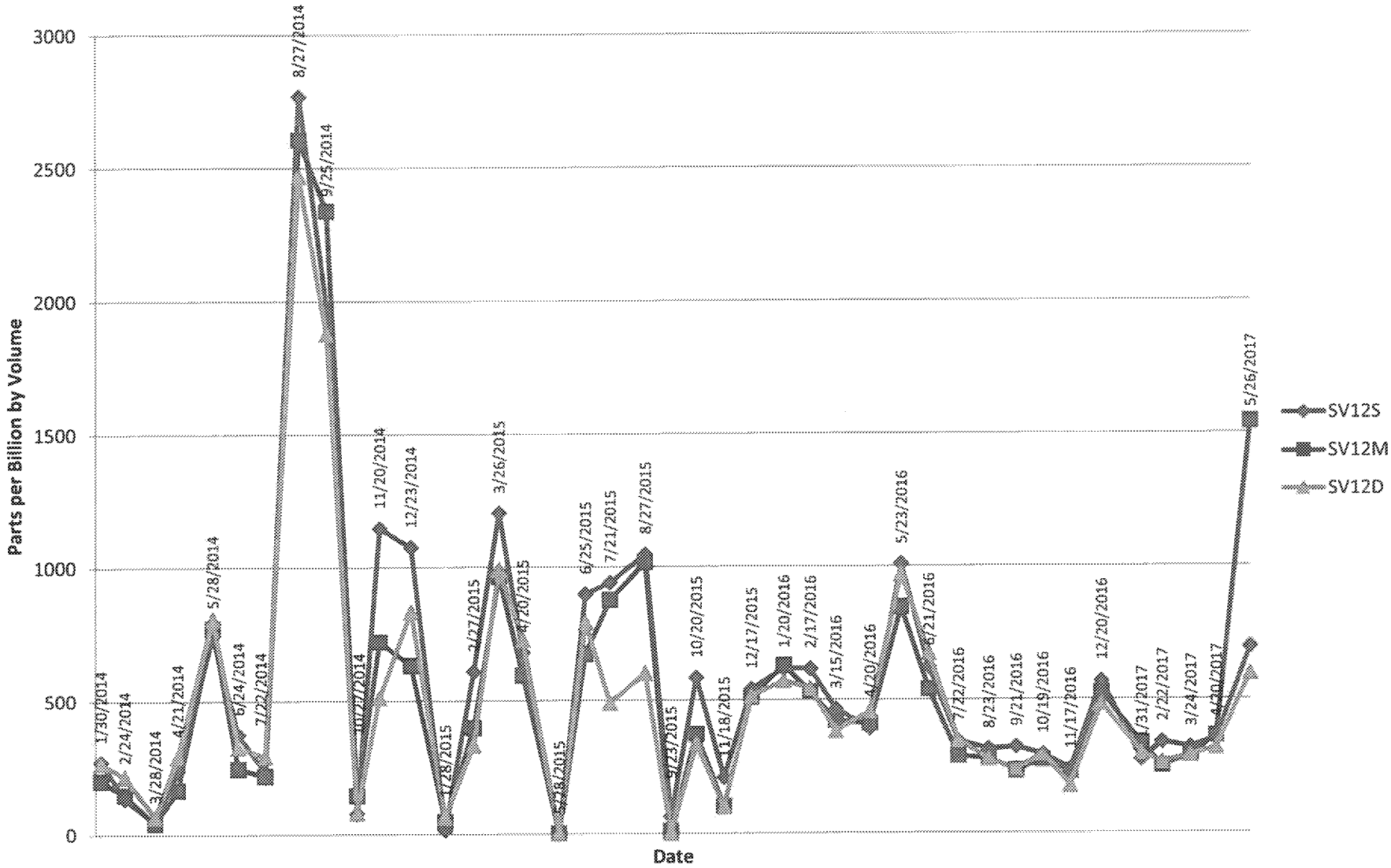

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Figure 12
Soil Vapor Measurements
SV13

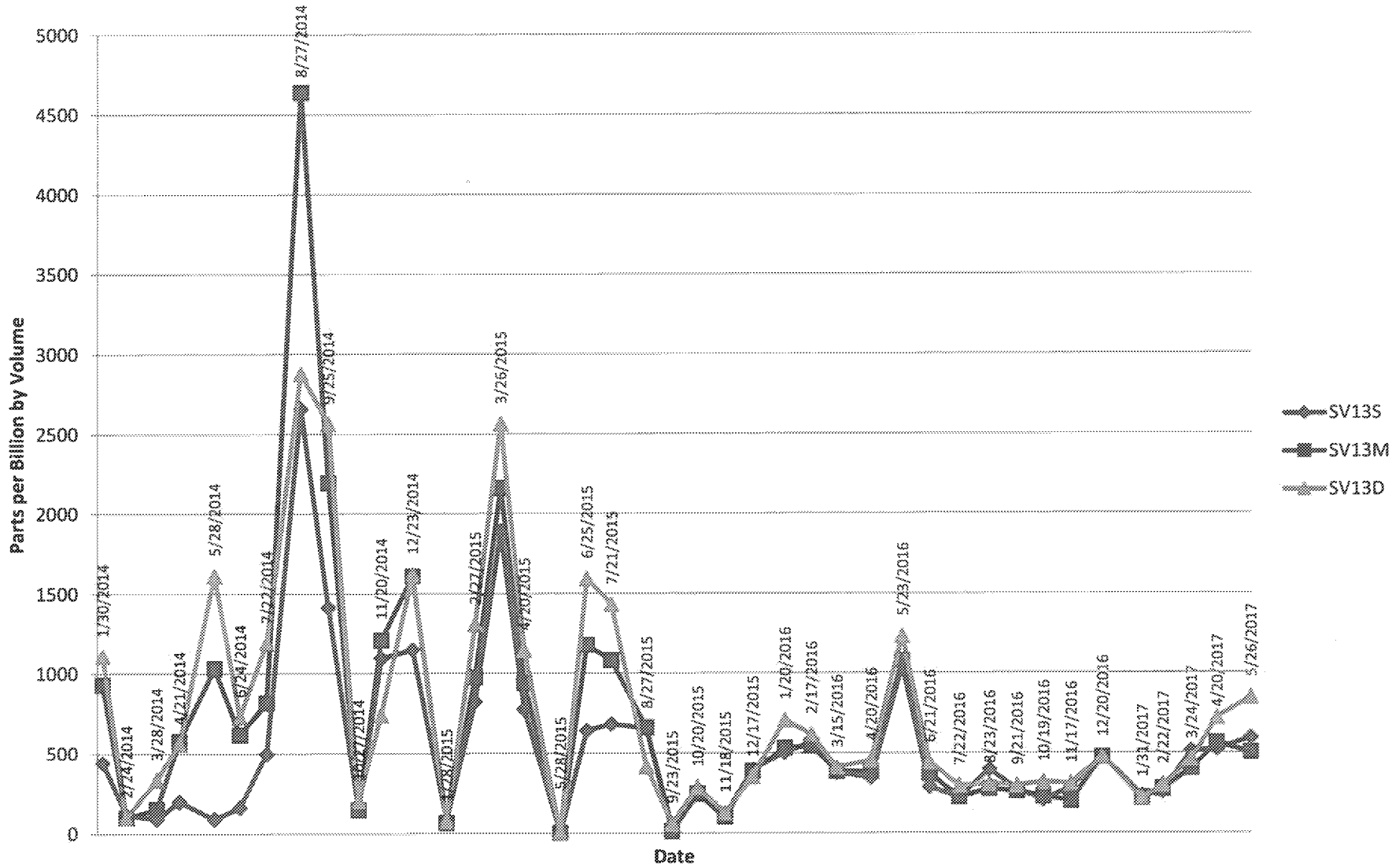

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Figure 13
Soil Vapor Measurements
SV14

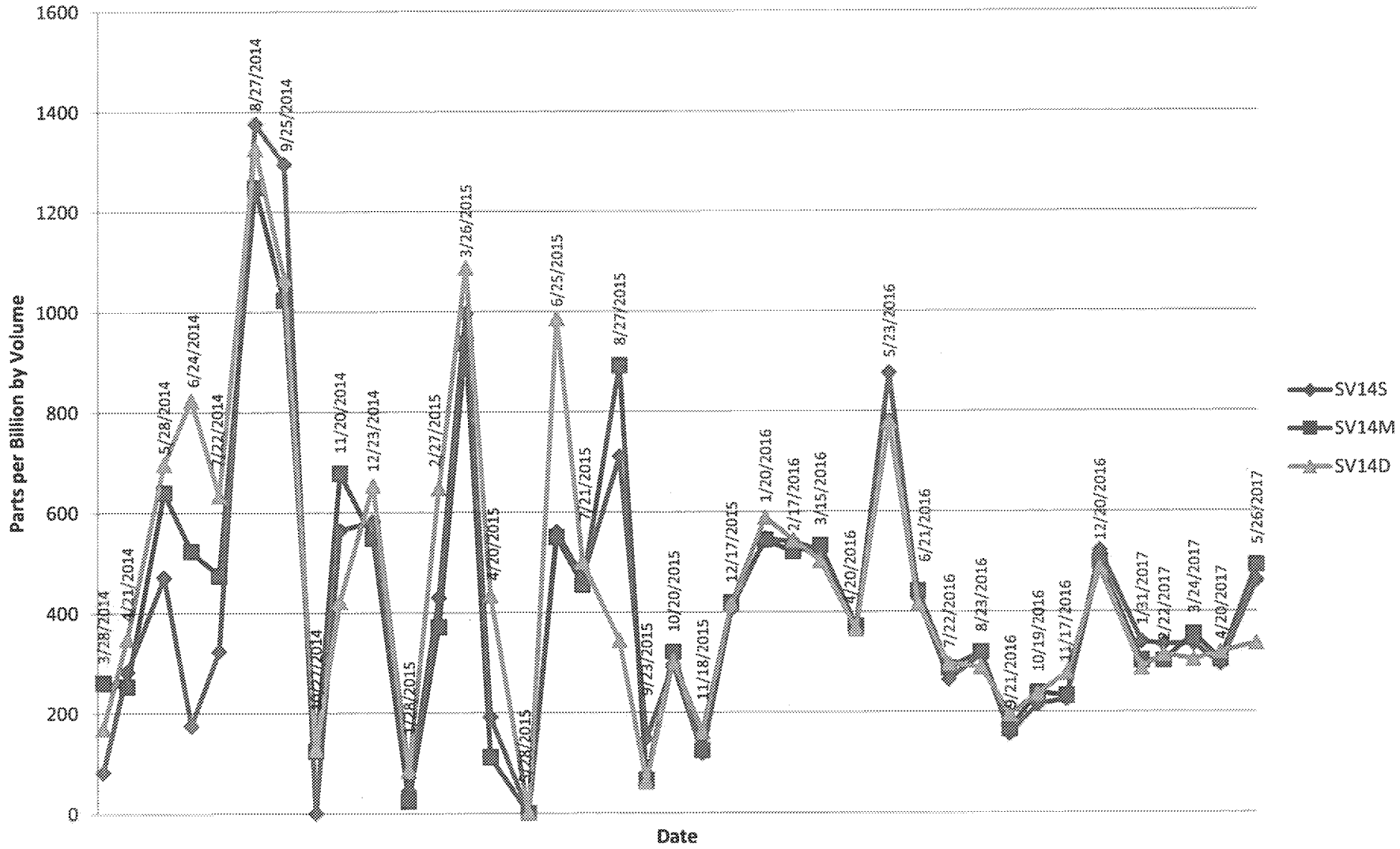

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Figure 14
Soil Vapor Measurements
SV15

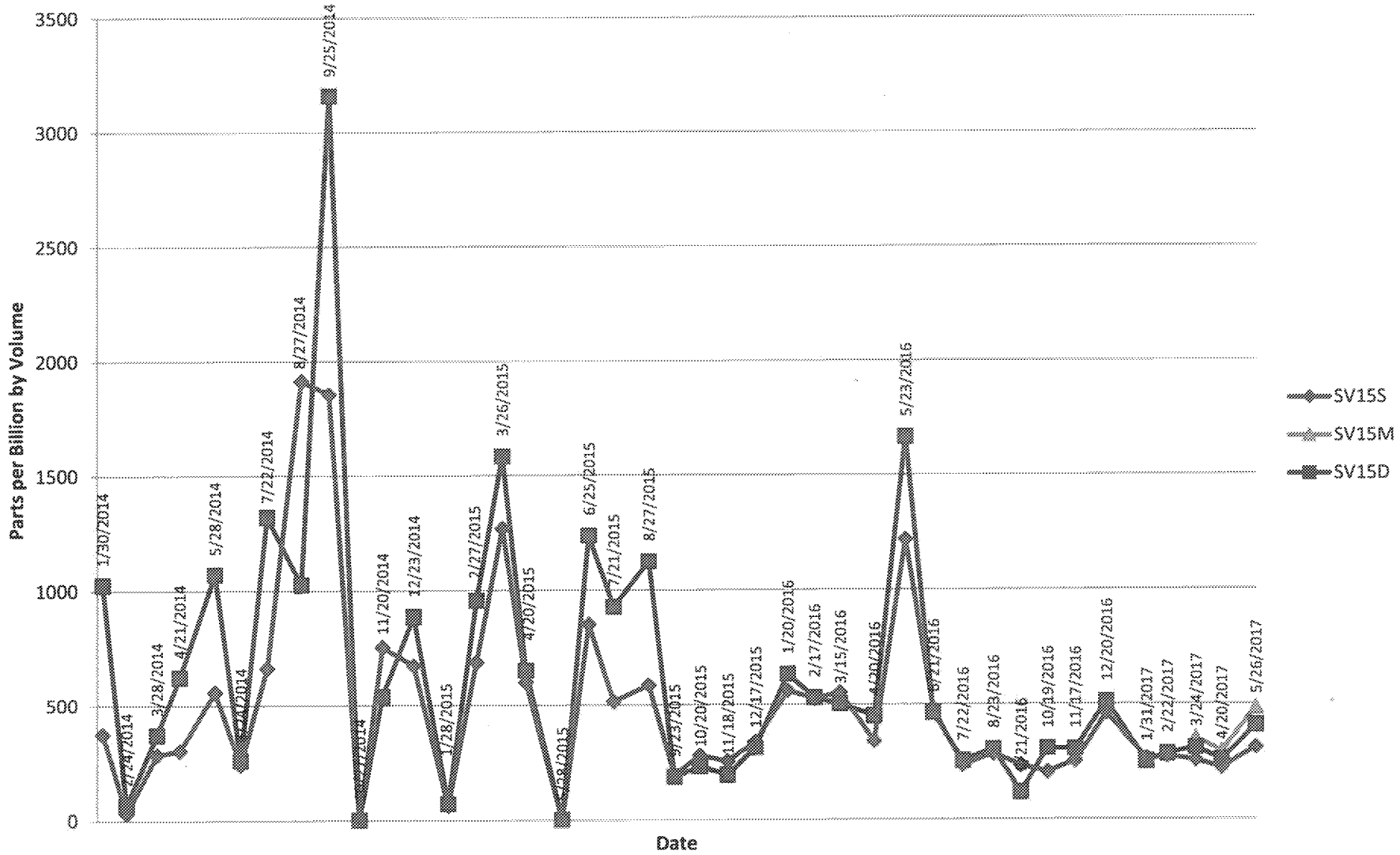

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Figure 15
Soil Vapor Measurements
SV16

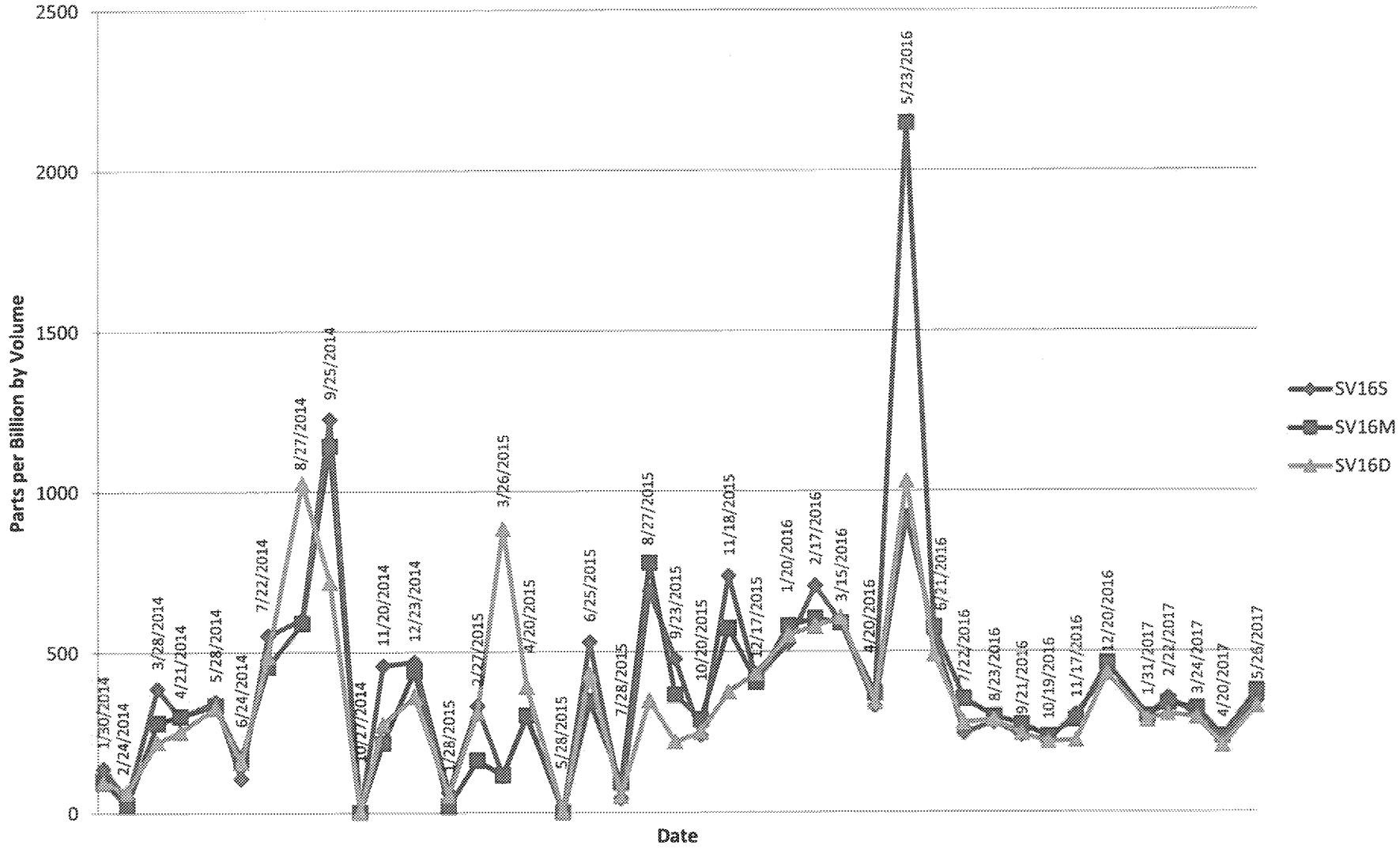

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Figure 16
Soil Vapor Measurements
SV17

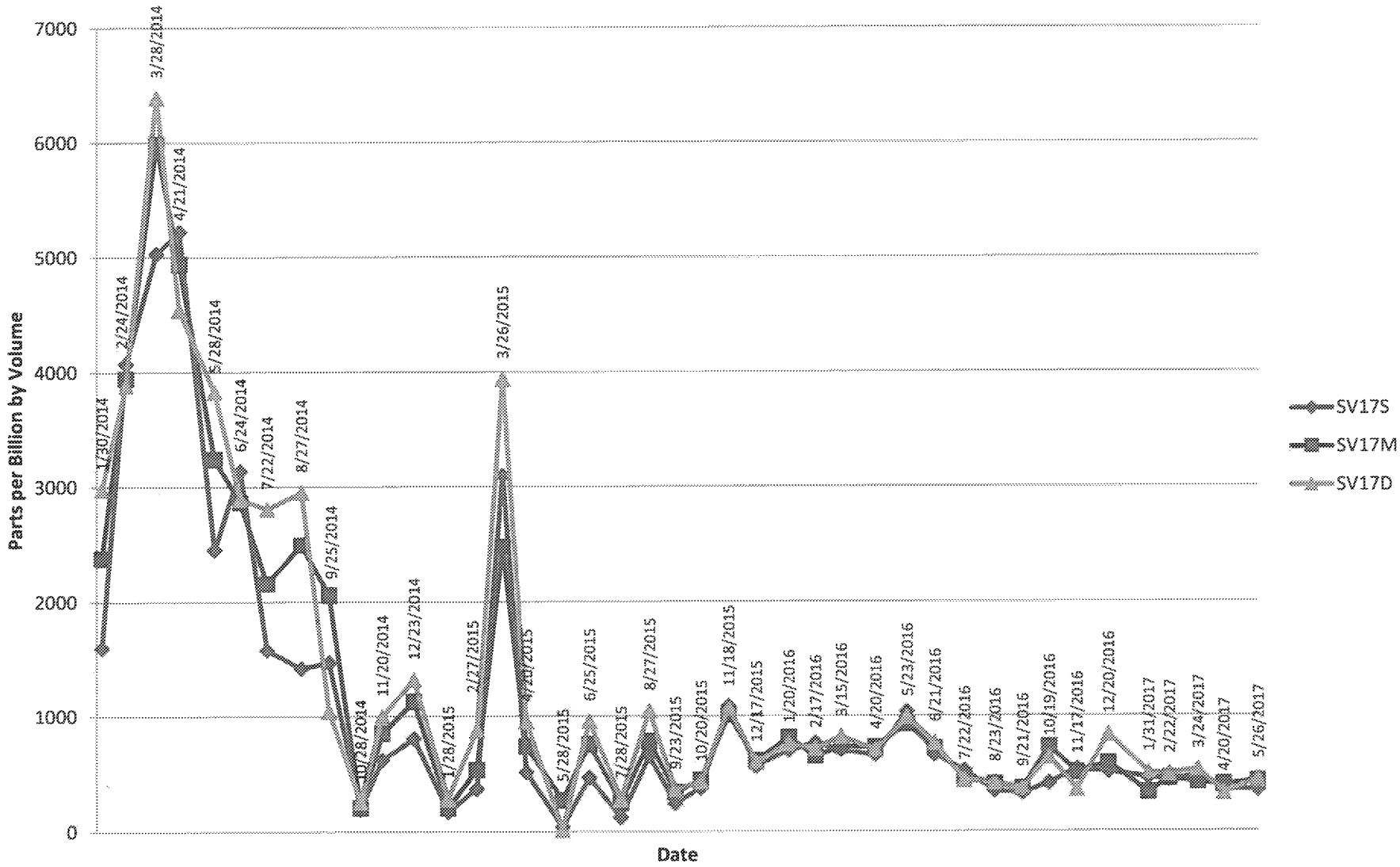

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Figure 17
Soil Vapor Measurements
SV18

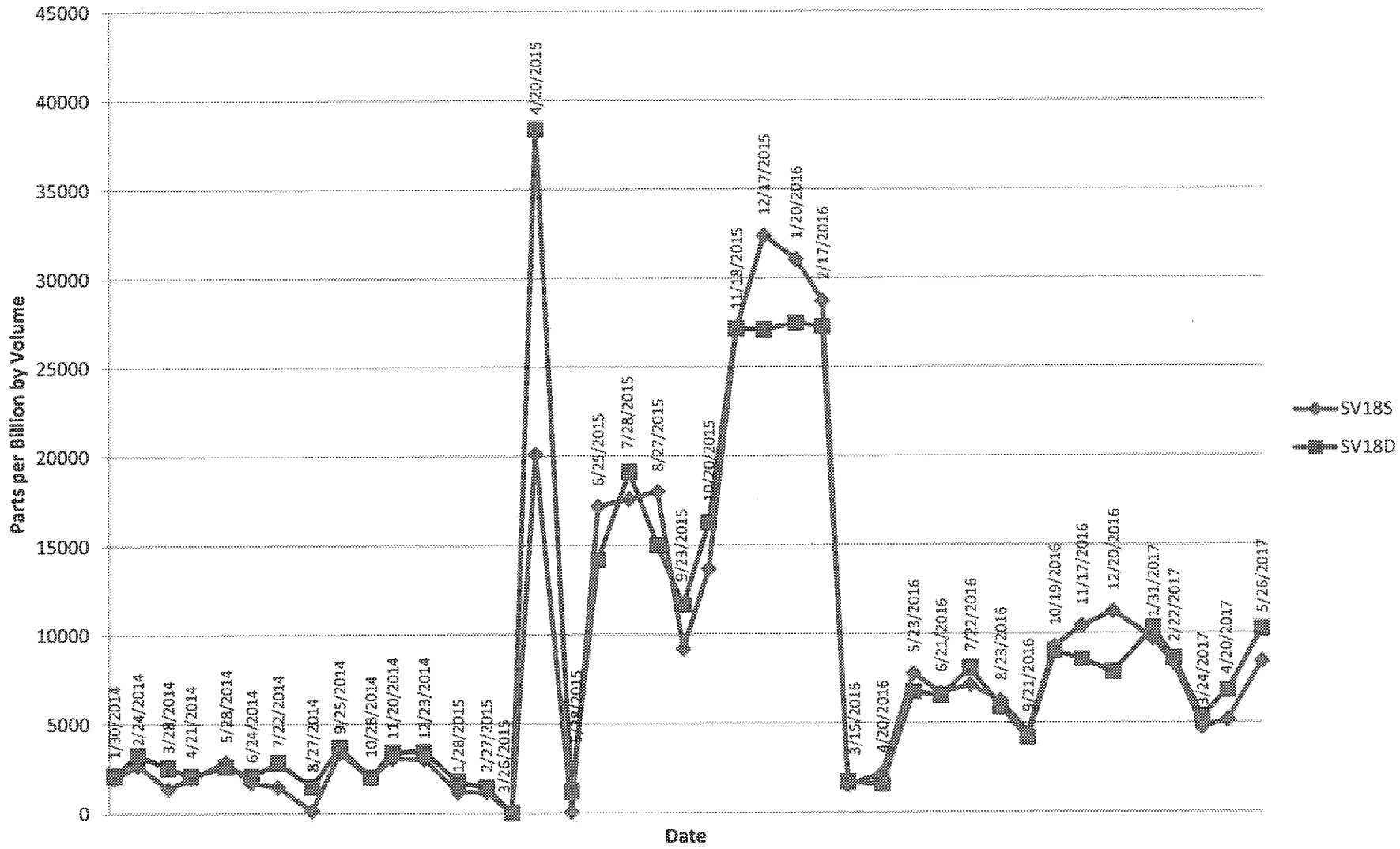

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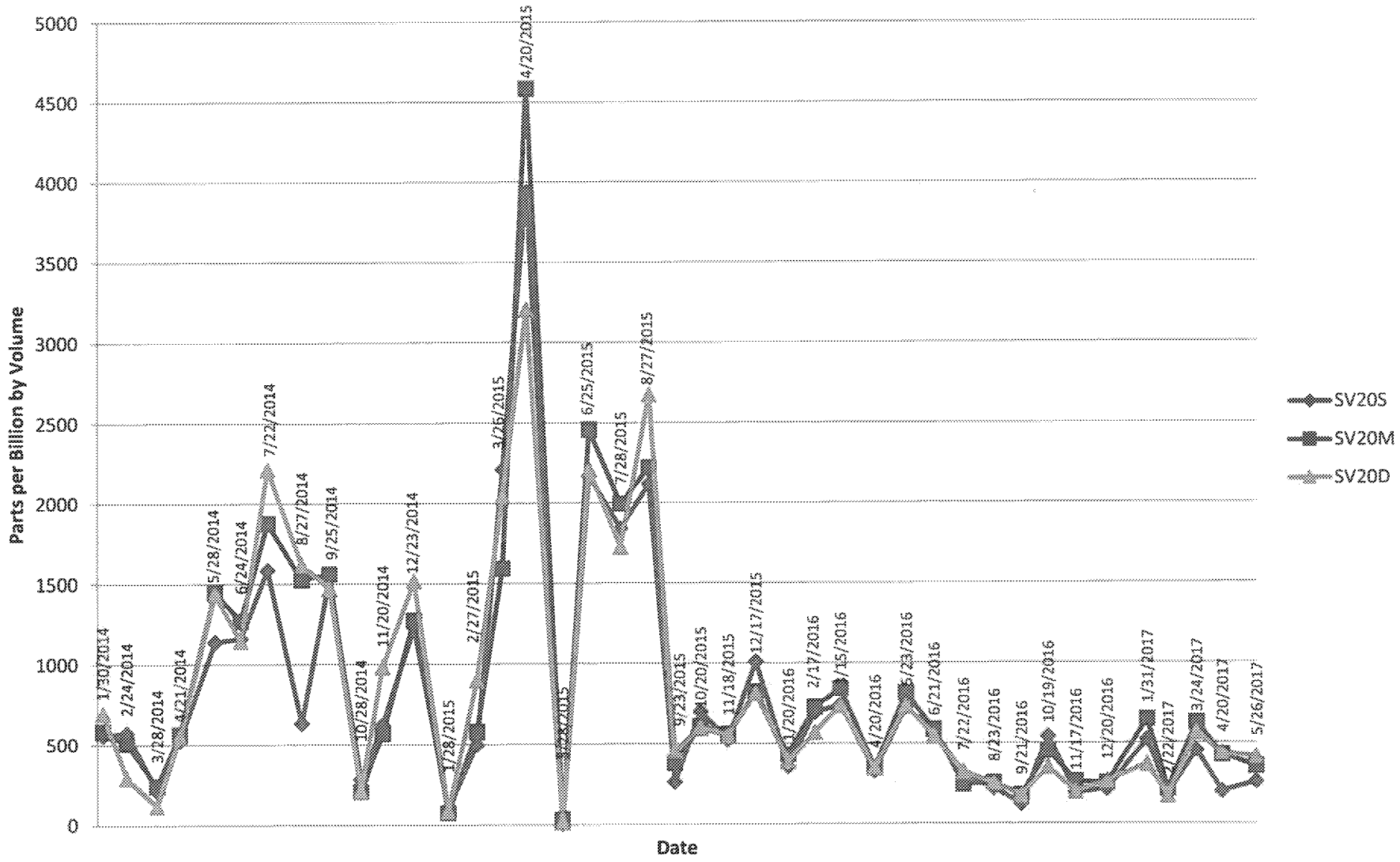
Figure 18
Soil Vapor Measurements
SV20



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