

砒素濃度 含有量簡易分析結果 單位 (ppm)

| 採取位置 | 深度 (GL - m) | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|--|--|--|--|--|--|--|--|--|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | | | | | | | | | |
| NO.1 | Trace | Trace | N.D. | Trace | Trace | Trace | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | N/A | N/A | | | | | | | | | | |
| NO.2 | N.D. | Trace | Trace | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N.D. | Trace | N.D. | Trace | Trace | N/A | | | | | | | | | | |
| NO.3 | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | Trace | N.D. | N/A | | | | | | | | | | |
| NO.4 | N.D. | N.D. | Trace | N.D. | N.D. | Trace | N.D. | Trace | N.D. | N.D. | Trace | Trace | Trace | N.D. | N/A | | | | | | | | | | |
| NO.5 | Trace | Trace | N.D. | Trace | N.D. | N.D. | N.D. | Trace | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |
| NO.6 | Trace | Trace | Trace | Trace | N.D. | N.D. | N.D. | Trace | N.D. | N.D. | 10 | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |
| NO.7 | Trace | N.D. | 23 | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N/A | | | | | | | | | | |
| NO.8 | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | Trace | Trace | N.D. | Trace | N.D. | Trace | N.D. | N/A | | | | | | | | | | |
| NO.9 | Trace | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | Trace | N.D. | Trace | N/A | | | | | | | | | | |
| NO.10 | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |
| NO.11 | N.D. | N.D. | N.D. | Trace | N.D. | Trace | N.D. | Trace | Trace | N.D. | 20 | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |
| NO.12 | N.D. | N.D. | Trace | N.D. | Trace | Trace | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N.D. | Trace | N/A | | | | | | | | | | |
| NO.13 | N.D. | N.D. | Trace | N.D. | N.D. | Trace | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | Trace | Trace | N/A | | | | | | | | | | |
| NO.14 | Trace | Trace | Trace | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N/A | | | | | | | | | | |
| NO.15 | Trace | N.D. | N.D. | Trace | N.D. | N.D. | Trace | N.D. | N.D. | Trace | Trace | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |
| NO.16 | 10 | N.D. | Trace | Trace | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | Trace | N/A | | | | | | | | | | |
| NO.17 | N.D. | N.D. | 11 | Trace | N.D. | Trace | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | Trace | N.D. | N/A | | | | | | | | | | |
| NO.18 | N.D. | 10 | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | 10 | N.D. | N/A | | | | | | | | | | |
| NO.19 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |
| NO.20 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | N/A | | | | | | | | | | |
| NO.21 | N.D. | N.D. | 85 | N.D. | N.D. | Trace | Trace | N.D. | N.D. | Trace | N.D. | N.D. | Trace | N.D. | N/A | | | | | | | | | | |
| NO.22 | N.D. | N.D. | Trace | Trace | N.D. | N.D. | N.D. | N.D. | Trace | Trace | N.D. | N.D. | Trace | Trace | N/A | | | | | | | | | | |
| NO.23 | N.D. | Trace | 53 | 11 | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | Trace | N/A | | | | | | | | | | |
| NO.24 | Trace | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | Trace | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |
| NO.25 | N.D. | Trace | N.D. | Trace | Trace | N.D. | N.D. | Trace | N.D. | Trace | Trace | N.D. | N.D. | N.D. | N/A | | | | | | | | | | |

N.D. 検出せず
Trace = 9ppm未満
N/A = Not Analyzed

神栖町A井戸周辺土壌/地下水中のヒ素化合物分析結果 (一次報告)

国立環境研究所

1. 土壌サンプルの分析について

- ① 土壌サンプル全349試料について、約5倍量の水で溶出させ、溶出液中のヒ素（全ヒ素）をICP/AES（検出下限10ppb）で測定した。

調査現場で実施した土壌ヒ素分析（蛍光X線分析）においてヒ素濃度の高かった3試料（#19/-4m、#21/-3m、#23/-3m）について、可溶性のヒ素は、検出下限以下であった。

検出下限を越えて検出されたヒ素濃度は下記の5検体のみで、他の検体からは検出下限以下であった。このうち-14mの3試料についてHPLC/ICP-MSによる化学形態分析を行った結果、いずれの抽出液からもジフェニルアルシン酸が主成分（90%以上）として見つかった。

| | | |
|------------|-----------|------------------|
| #18 (-12m) | 0.012 ppm | |
| #20 (-13m) | 0.018 ppm | |
| #20 (-14m) | 0.107 ppm | (ジフェニルアルシン酸が主成分) |
| #21 (-14m) | 0.026 ppm | (ジフェニルアルシン酸が主成分) |
| #22 (-14m) | 0.014 ppm | (ジフェニルアルシン酸が主成分) |

図に示すように-14mの深いところで検出されていることが注目される。また検出地点はいずれもA井戸の東側ないし北東側に位置している。

- ② 平面分布を知る為に、更に分析感度を向上させ（ICP-MSを使用）、深度6mのレベルでの土壌試料の分析を試みた。うち、総ヒ素濃度が1ppb前後ないしそれ以上の試料は以下の通り。

| | 総ヒ素濃度 | |
|-----------|----------------|-------------------------|
| #11 (-6m) | 3.67 ppb | (ジフェニルアルシン酸 3.5 ppb As) |
| #13 (-6m) | 1.39 ppb | (ジフェニルアルシン酸 検出されず) |
| #16 (-6m) | 3.37 ppb | (ジフェニルアルシン酸 1.7 ppb As) |
| #18 (-6m) | 1.31 ppb | (ジフェニルアルシン酸 検出されず) |
| #19 (-6m) | トレース (0.8 ppb) | (ジフェニルアルシン酸 検出されず) |

深度6mのレベルでの平面分布の分析では、調査された各地点でもヒ素濃度は低く、有意なヒ素含有を示していない。調査された地点では深い所に有意な汚染が示唆される。

2. 水試料の分析について

- ① ボーリング調査時採取地下水の分析

上記のボーリング調査時に、#1、#2、#9、#11、#13、#14、#25の7つの地点で地下6mより採取した地下水についてHPLC/ICP-MSによる化学形態分析を