ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

JW

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 5, 2006

Werner R. and Irmgard S. Schropp
C/o Richard Jones
Agriculture Industries, Inc.
P.O. Box 1076
West Sacramento, CA 95691-1076

Subject: SLIC Case No. RO0002473, Schropp Ranch – Western Property, 3880 Mountain House Road, Byron, CA 94514

Dear Mr. Jones:

This letter confirms the completion of site investigation and remedial actions for the soil and groundwater investigation at the above referenced site. We are also transmitting the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported releases at the subject site with the provision that the information provided to this agency was accurate and representative of existing conditions. The subject Spill, Leaks, Investigation, and Cleanup (SLIC) case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Approximately 25 to 100 cubic yards of petroleum-contaminated soil was left in place beneath and adjacent to the farmhouse due to engineering and safety concerns.
- Probably crude oil contamination from the Central Valley Pipeline was encountered below the water table at a depth of 22 to 25 feet bgs near the northern property boundary. The probable crude oil contamination was removed with the gasoline-contaminated soil in the northern portion of the excavation up to the northern property boundary. The extent of crude oil contamination north beyond the northern property boundary is unknown because the adjoining property owner did not allow access to the property.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

Donna L. Drogos, P.E.
LOP and SLIC Program Manager

Enclosures: SLIC Case Closure Summary

cc: Cori Condon (w/enc.)
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

David Stavarek (w/enc.)
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Matt Katen, QIC 80201 (w/enc.)
Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Stephen Muir (w/enc.)
P.O. Box 152
Woodbridge, CA 95258

Donna Drogos, ACEH (w/enc.)
Roseanna Garcia-LaGrille (w/enc.)
Jerry Wickham, ACEH (w/ original enc)
File

Alameda County Environmental Health

CASE CLOSURE SUMMARY
SPILLS, LEAKS, INVESTIGATION, AND CLEANUP PROGRAM

I. AGENCY INFORMATION

Date: January 3, 2006

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6791
Responsible Staff Person: Jerry Wickham	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Schropp Ranch – Western Property		
Site Facility Address: 3880 Mountain House Road, Byron, CA 94514		
RB Case No.: --	Local Case No.: --	SLIC Case No.: RO0002473
URF Filing Date: 04/22/1992	SWEEPS No.: ---	APN: 99B-7200-002-04

Responsible Parties	Addresses	Phone Numbers
Werner R. and Irmgard S. Schropp c/o Richard Jones, Agriculture Industries, Inc.	P.O. Box 1076, West Sacramento, CA 95691-1076	916-372-5595

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	550	Gasoline	Removed	Fall, 1991 (precise date unknown)
Piping			Removed	Fall, 1991

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Numerous holes were observed in the bottom of the tank following removal. Surface staining from gasoline was also observed around the former fuel dispenser.		
Site characterization complete? Yes	Date Approved By Oversight Agency: -----	
Monitoring wells installed? Yes	Number: 5	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 11.6 ft.	Lowest Depth: approximately 25 ft.	Flow Direction: Northeast at gradient of approximately 0.002
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity:
One water well (2S/3E – 6F1) was located on the property immediately adjacent to the former UST location. A televideo log indicated that the well had not been perforated within the upper 50 feet and was approximately 140 feet deep. The well had a 10-inch diameter steel casing. A resident living at the house reported a "gasoline" like odor from the tap water. The residents used bottled water due to poor quality and taste and are reported to have not used the well water for domestic use for at least five years prior to 1992. A groundwater sample collected from the well in October 1992 contained TPHg at 79,000 µg/L, benzene at 7,050 µg/, toluene at 2,830 µg/L, ethylbenzene at 2,300 µg/L, and xylenes at 2,160 µg/L. The well was decommissioned in accordance with Zone 7 requirements in 1992.

Following the decommissioning of the water supply well located adjacent to the former UST location, a replacement well was installed approximately 250 feet southwest (upgradient) of the former UST location. The replacement well supplies water to the ranch house; however, the residents use bottled water due to poor water quality and taste. The replacement well is approximately 275 feet deep and is screened in the lower 30 feet.

A water supply well is present at the Mountain House School, about 600 feet east and downgradient of the site. The depth and interval where the well draws water are unknown. The school well was sampled in November, 1992 and analyzed for TPHg and BTEX; no analytes were detected. In accordance with California Department of Health Services requirements, the well is sampled monthly for volatile organic compounds, metals, and general minerals. The Mountain House School water well is reported to be used only for irrigation of the school yard and sanitation. According to the principal, the students, faculty, and visitors have been drinking bottled water for more than 10 years due to the mineral content of the groundwater.

No other wells are located within 500 feet of the site.

Are drinking water wells affected? No	Aquifer Name: Tracy
Is surface water affected? No	Nearest SW Name: One Hundred and Twenty Canal is about 1,200 feet southwest of the site and Mountain House Creek is about 1,500 feet north of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	1-550 gallon tank	Removed, disposal destination unknown	Fall, 1991
Piping	Not reported	Removed, disposal destination unknown	Fall, 1991
Free Product	Not Observed	—	—
Soil	19,000 cubic yards	Excavated soil aerated in accordance with Bay Area Air Quality Management District guidelines, sampled, and then placed on existing dirt roads on the ranch.	July to August, 1992
Groundwater	Not reported	Groundwater collected in the excavation was collected in storage tanks, pumped through carbon filters, sampled, treated again if necessary, and then discharged into an alfalfa field on the ranch.	July to August 1992

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments 1 through 7 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	1,140	1.6	188,000(a)	<50
TPH (Diesel)	<5	<5	NA	NA
Oil & Grease	NA	NA	NA	NA
Benzene	23	<0.003	9,970(a)	<0.5
Toluene	44	<0.003	13,150(a)	<0.5
Ethylbenzene	7	<0.003	330(a)	<0.5
Xylenes	46	0.007	7,300(a)	<0.5
Heavy Metals	NA	NA	<2(b)	<2(b)
MTBE	<0.005(c)	<0.005(c)	<0.5(c)	<0.5(c)
Other (8240/8270)	NA(d)	NA(d)	VOCs<1	VOCs<1

a) Water sample was collected directly from the excavation and may overestimate the concentration of dissolved hydrocarbons due to high turbidity and poor sample quality.
b) Lead
c) All fuel oxygenates <0.005 mg/kg in soil; <0.5 ppb MTBE, <0.5 ppb TAME, <0.5 ppb ETBE, <0.5 ppb DIPE, <5 ppb TBA, <0.5 ppb EDB, <0.5 ppb 1,2-DCA in groundwater.
d) NA = Not analyzed

Site History and Description of Corrective Actions:
A 550-gallon gasoline UST was used on the Schropp Ranch –Western Property from 1960 to 1986 as a residential gasoline tank. According to the lessor of the property, only gasoline was added to the tank. The tank was estimated to have been filled by the property lessor approximately three times between 1979 and 1986. The UST was not used after 1986. The tank, piping, and dispenser were removed during the fall of 1991 by the lessor without a permit. The former UST, which remained on site following removal until 1992, was observed to have numerous holes in the bottom of the tank and a significant volume of stained soil was reported beneath the UST.

In April 1992, two exploratory trenches were excavated to a depth of approximately 25 feet below ground surface immediately adjacent to the former UST location. Contaminated soil was observed in the area beneath and adjacent to the former tank location. A grab groundwater sample from the excavation contained 27,500 micrograms per liter (µg/L) of total petroleum hydrocarbons as gasoline (TPHg), 1,180 µg/L benzene, 1,650 µg/L toluene, 265 µg/L ethylbenzene, and 775 µg/L xylenes.

Additional investigation, consisting of a series of borings and exploratory trenches was conducted in July 1992. Soil samples form the borings and trenches indicated that relatively low levels of soil contamination were present over a wide area of the shop yard. Based on soil and groundwater data from the July 1992 investigation, a Feasibility Study was prepared. The Feasibility Study indicated that overexcavation of contaminated soil was the only feasible method to remediate the source area.

An estimated 19,000 cubic yards of gasoline-contaminated soil was excavated from the subsurface to a depth of approximately 30 feet below ground surface during July and August 1992. The depth of contamination was consistent with the zone of water level fluctuation, which is between approximately 11.6 and 25 feet below ground surface. The Byron-Bethany Irrigation Pipe was temporarily removed from the center of the excavation and was replaced following completion of the excavation. Petroleum hydrocarbon contaminated soil was removed throughout

the site with the exception of a small volume of contaminated soil immediately adjacent to and beneath the farm house that was left in place due to engineering safety concerns. The volume of petroleum-contaminated soil left in place beneath and adjacent to the farm house is estimated to be approximately 25 to 100 cubic yards. The excavation extended to the northern property boundary. The volume of gasoline excavated from the subsurface is estimated to be about 700 to 750 gallons. The excavation was backfilled with clean overburden from the excavation and imported fill. The gasoline contaminated soil was aerated in accordance with Bay Area Air Quality Management District guidelines at rates prescribed for soil with TPH at concentrations less than 50 milligrams per kilogram (mg/kg). After the soil was aerated and sampled, the soil was placed on existing roads on the Schropp property.

Groundwater from the excavation was pumped through a carbon filtration system into a series of 20,000-gallon holding tank. The filtered water was sampled for petroleum hydrocarbons and re-filtered if necessary, prior to discharge into an alfalfa field on the property in accordance with a discharge permit from the California Regional Water Quality Control Board (Water Board).

In the northern portion of the excavation, a layer of hydrocarbon-contaminated soil with the appearance of unrefined crude oil was encountered between depths of 22 to 25 feet bgs. This layer, which extended approximately 20 to 30 feet south from the northern Schropp Ranch property boundary, was excavated with the gasoline-contaminated soil in the northern portion of the excavation. The extent of the probable crude oil layer to the north was not determined because access was denied by the owner of the adjoining property to the north. The probable source of the apparent crude oil was the Central Valley Pipeline, which is on the adjoining property north of the excavation and was abandoned in place in approximately 1970.

Five soil borings were completed as 2-inch diameter monitoring wells to depths of 30 to 35 feet bgs in September 1993. Soil samples collected at five-foot intervals from the soil borings were analyzed for TPHg and BTEX. All analytes were below detection limits in all soil samples collected. Quarterly groundwater monitoring was initiated for the five monitoring wells in March 1994. Between March 1994 and April 1996, the wells were sampled five times with the samples analyzed for TPHg and BTEX. TPHg and BTEX were below detection limits in all water samples. A final monitoring event was conducted in the five on-site wells and the Mountain House School water supply well in March, 2002 The groundwater samples were analyzed using EPA Method 8260B for TPHg, BTEX, 7 fuel oxygenates, 1,2-dichloroethane, and ethylene dibromide. All analytes were reported below detection limits.

An additional investigation was conducted in 2003 to assess the potential for the former water supply well to have acted as a vertical conduit to cause contamination of the deeper aquifer. Two soil borings were advanced to a depth of approximately 70 to 75 feet bgs in the area immediately adjacent to the former Schropp Ranch domestic water well. Soil samples were collected every five feet and groundwater samples were collected at 50 feet bgs and the total depth of each boring. The soil and groundwater samples were analyzed for TPHg, BTEX, 5 oxygenates, 1,2-dichloroethane, and ethylene dibromide. All analytical results were below detection limits, indicating that the second water-bearing zone below 50 feet bgs had not been impacted by petroleum hydrocarbons.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes No		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes No		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: None		
Should corrective action be reviewed if land use changes? No		
Was a deed restriction or deed notification filed? No		Date Recorded: --
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 5
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: --		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

Approximately 25 to 100 cubic yards of petroleum-contaminated soil was left in place beneath and adjacent to the farm house due to engineering and safety concerns.

Probable crude oil contamination from the Central Valley Pipeline was encountered below the water table at a depth of 22 to 25 feet bgs near the northern property boundary. The probable crude oil contamination was removed with the gasoline-contaminated soil in the northern portion of the excavation up to the northern property boundary. The extent of crude oil contamination north beyond the northern property boundary is unknown because the adjoining property owner did not allow access to the property.

Schropp Ranch – East Property

The Central Valley Pipeline (CVP) crosses the Schropp Ranch property at a location east of Mountain House Road, several hundred feet east of the site discussed in this case closure summary. A series of trenches were excavated along the CVP easement on the Schropp property east of Mountain House Road in May 1994 (Schropp Ranch - East Property). A significant volume of crude oil contaminated soil was observed. Shell Oil Company investigated and remediated the crude oil contaminated soil and groundwater along the former CVP easement under regulatory oversight of the Water Board. In August 1999, the Water Board issued a closure letter indicating that no further action was required regarding the crude oil release on the Schropp Ranch East Property.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment based upon the information available in our files to date. No further investigation or cleanup is necessary. ACEH staff recommend case closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Jerry Wickham	Title: Hazardous Materials Specialist
Signature: Jerry Wickham	Date: 11/29/05
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature:	Date: 11/29/05

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Con Condon	Title: ~~Associate Water Resources Control Engineer~~ Senior Eng. Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature:	Date: 3/6/06

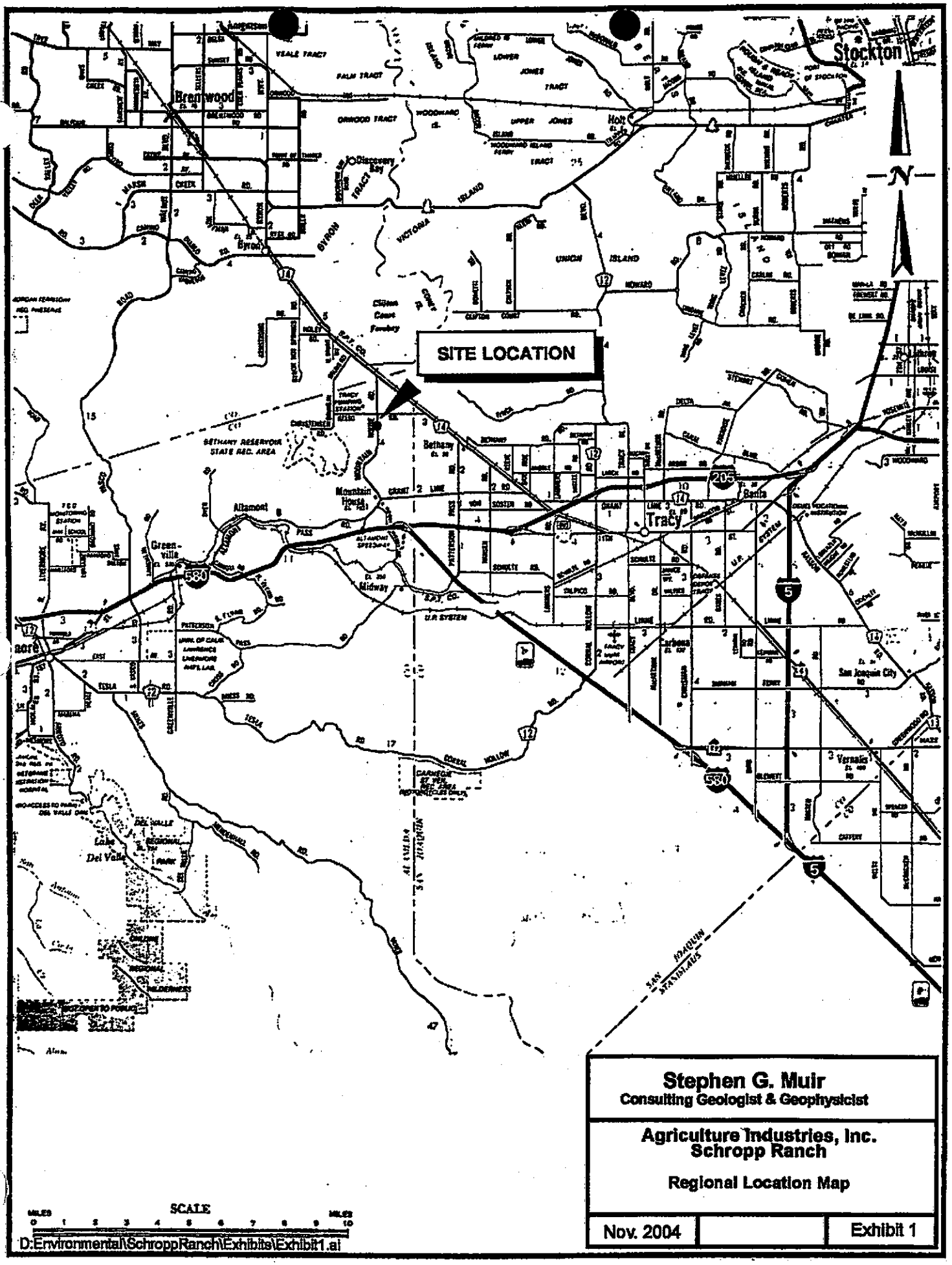
VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: 02/23/06	Date of Well Decommissioning Report: 05/16/06	
All Monitoring Wells Decommissioned: (Yes) No	Number Decommissioned: 5	Number Retained: 0
Reason Wells Retained: Not Applicable		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: Jerry Wickham		Date: 06/05/06

Attachments:

1. Regional Location Map and Site Location Map (2 pages)
2. Site Conceptual Model (1 page)
3. Map of Excavation Showing Sample Locations & Activity; Geologic Cross Sections (4 pages)
4. Groundwater Surface Contour Map- 7/11/94 (1page)
5. Soil Analytical Data (4 pages)
6. Groundwater Analytical Data (3 pages)
7. Boring Logs (7 pages)
8. California Regional Water Quality Control Board No Further Action Required Concurrence (4 pages)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.



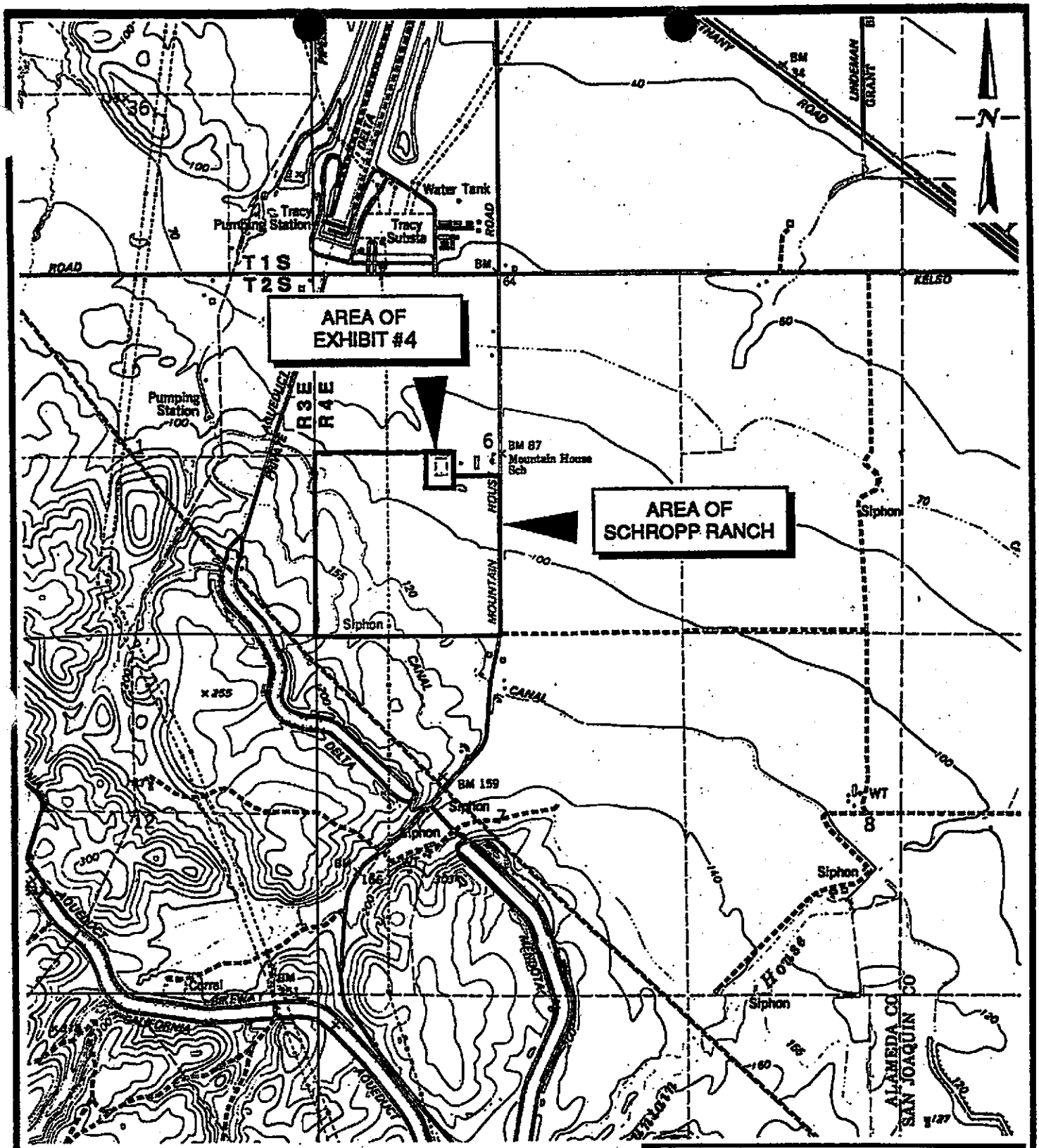
Stephen G. Muir
Consulting Geologist & Geophysicist

Agriculture Industries, Inc.
Schropp Ranch

Regional Location Map

Nov. 2004		Exhibit 1

ATTACHMENT 1



REF: U.S. GEOLOGICAL SURVEY, CLIFTON COURT FOREBAY 1:24,000 TOPOGRAPHIC MAP

0 1000 2000 3000 4000 FEET

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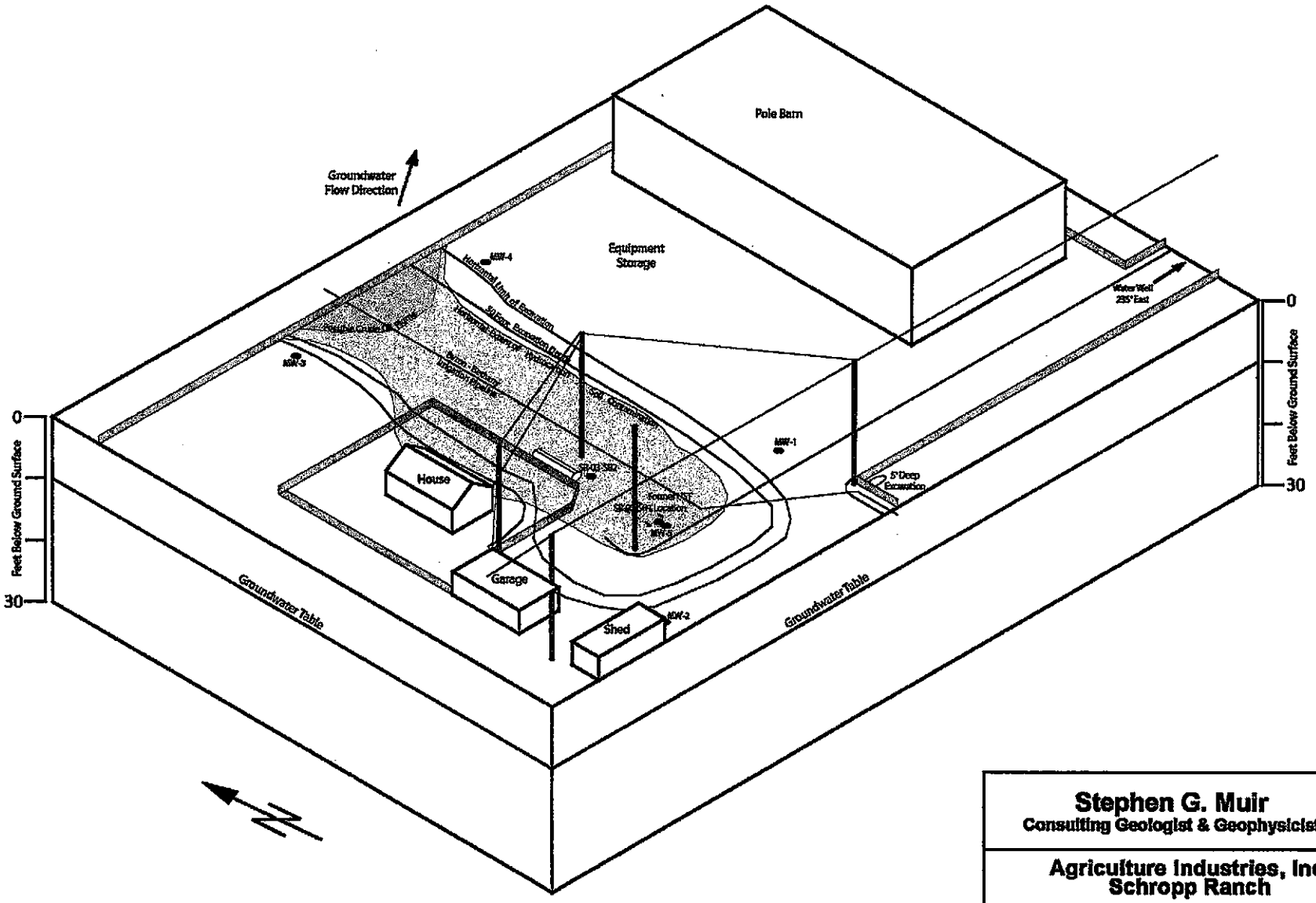
Stephen G. Muir
Consulting Geologist & Geophysicist

Agriculture Industries, Inc.
Schropp Ranch

Site Location Map

Nov. 2004		Exhibit 2



Stephen G. Muir Consulting Geologist & Geophysicist		
Agriculture Industries, Inc. Schropp Ranch Site Conceptual Model		
Nov. 2004	Not to Scale	Exhibit 12

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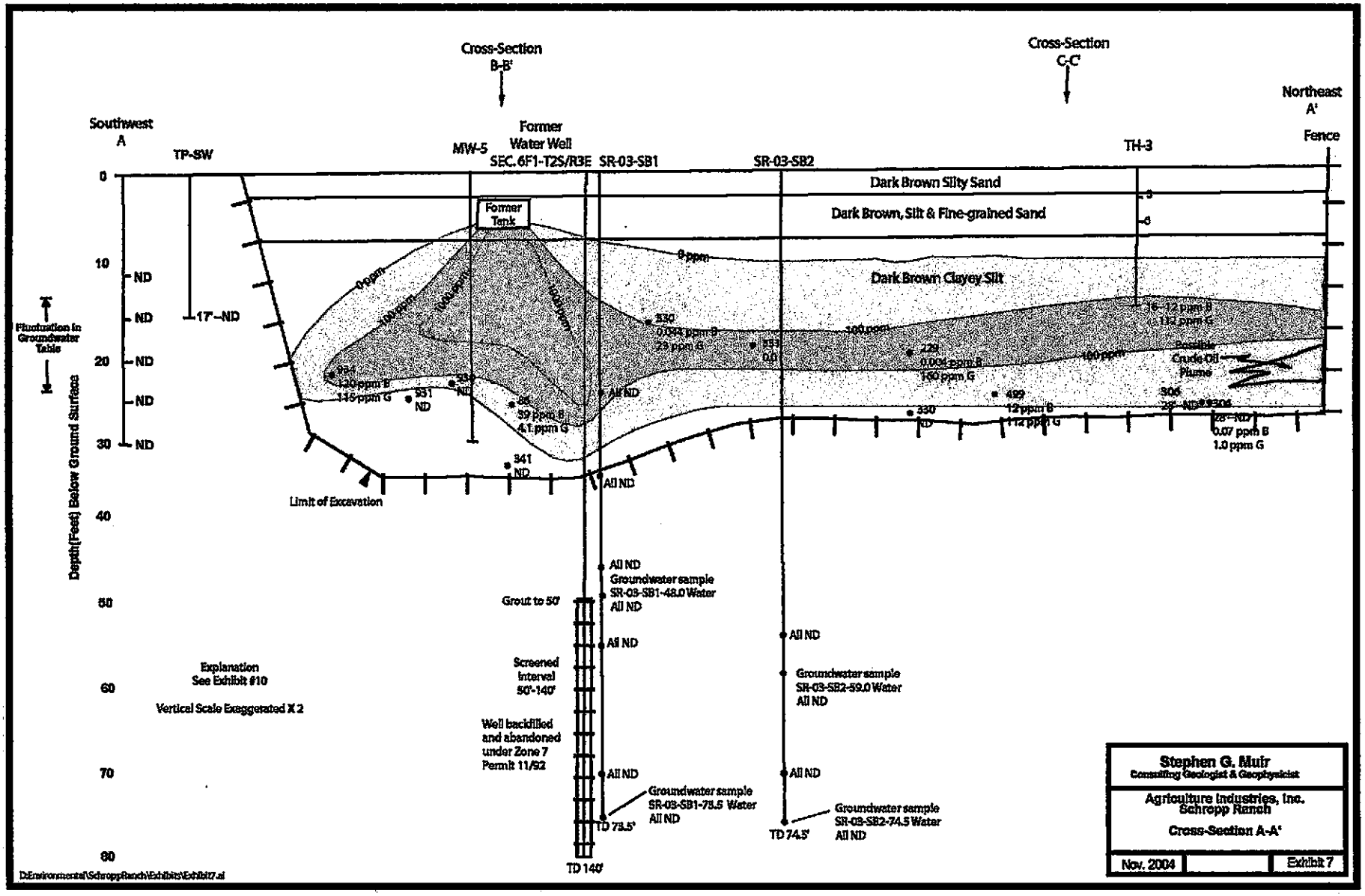
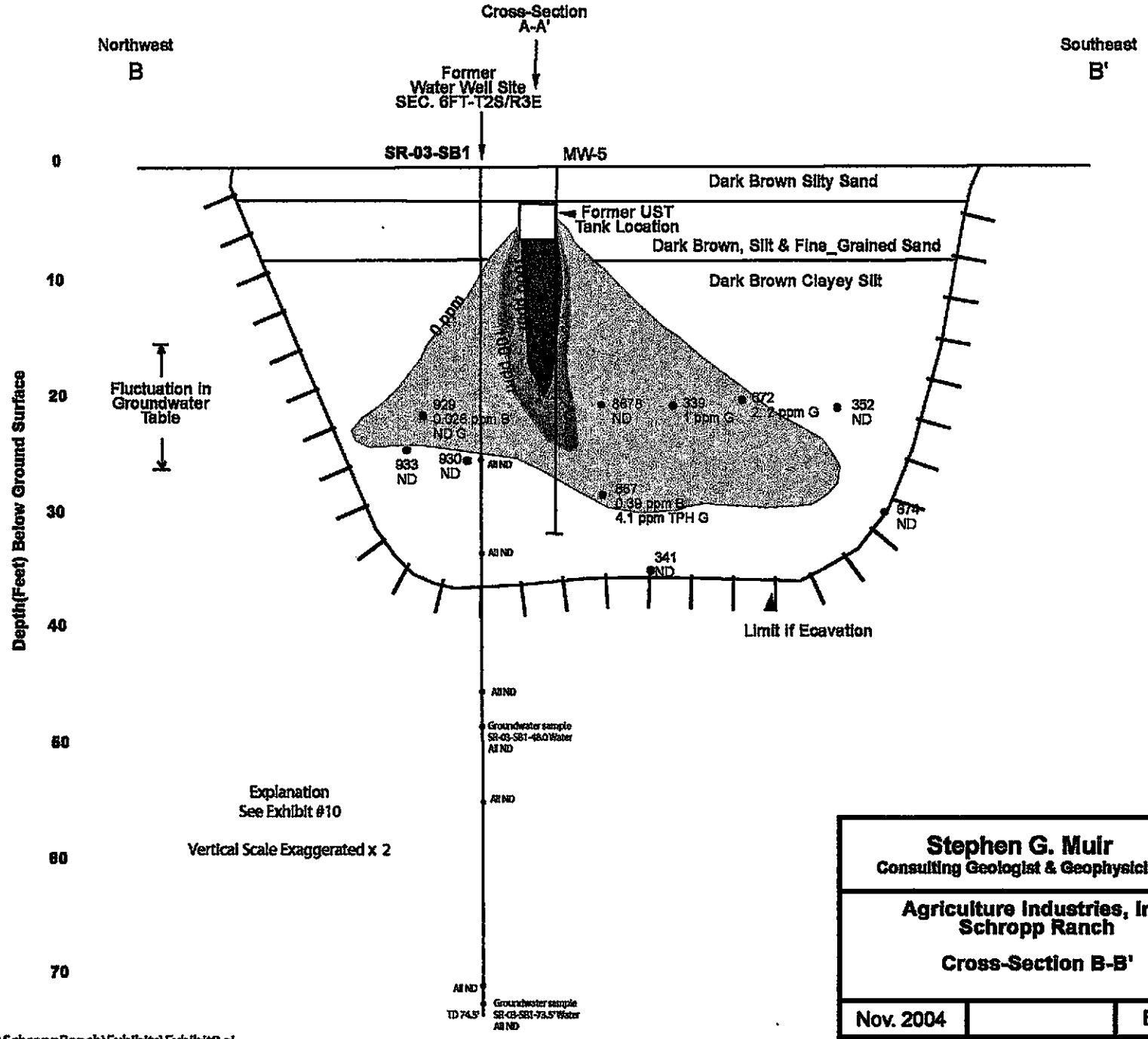
ATTACHMENT 2



ATTACHMENT 3



Stephen G. Muir
Consulting Geologist & Geophysicist

Agriculture Industries, Inc.
Schropp Ranch

Cross-Section B-B'

Nov. 2004		Exhibit 8

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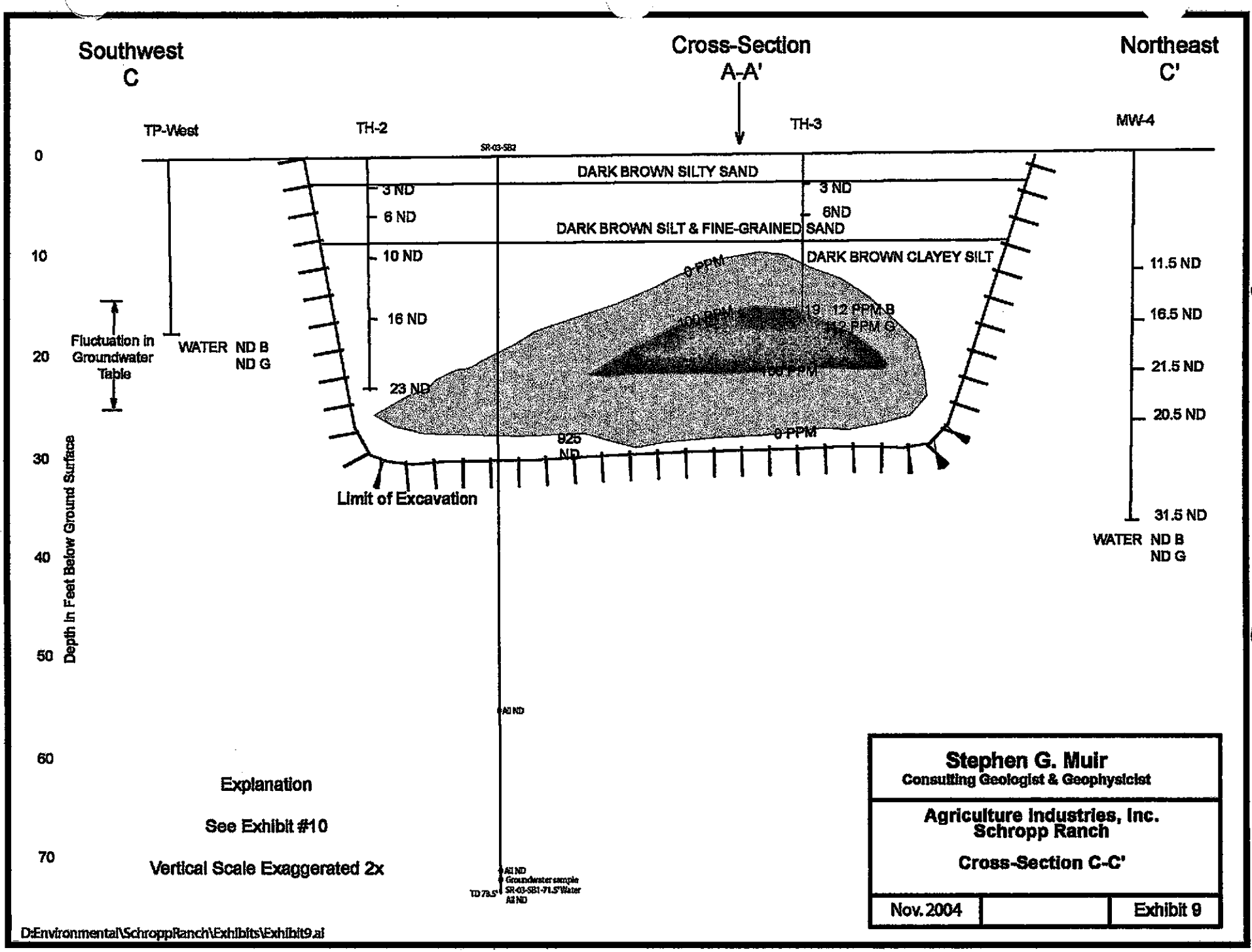
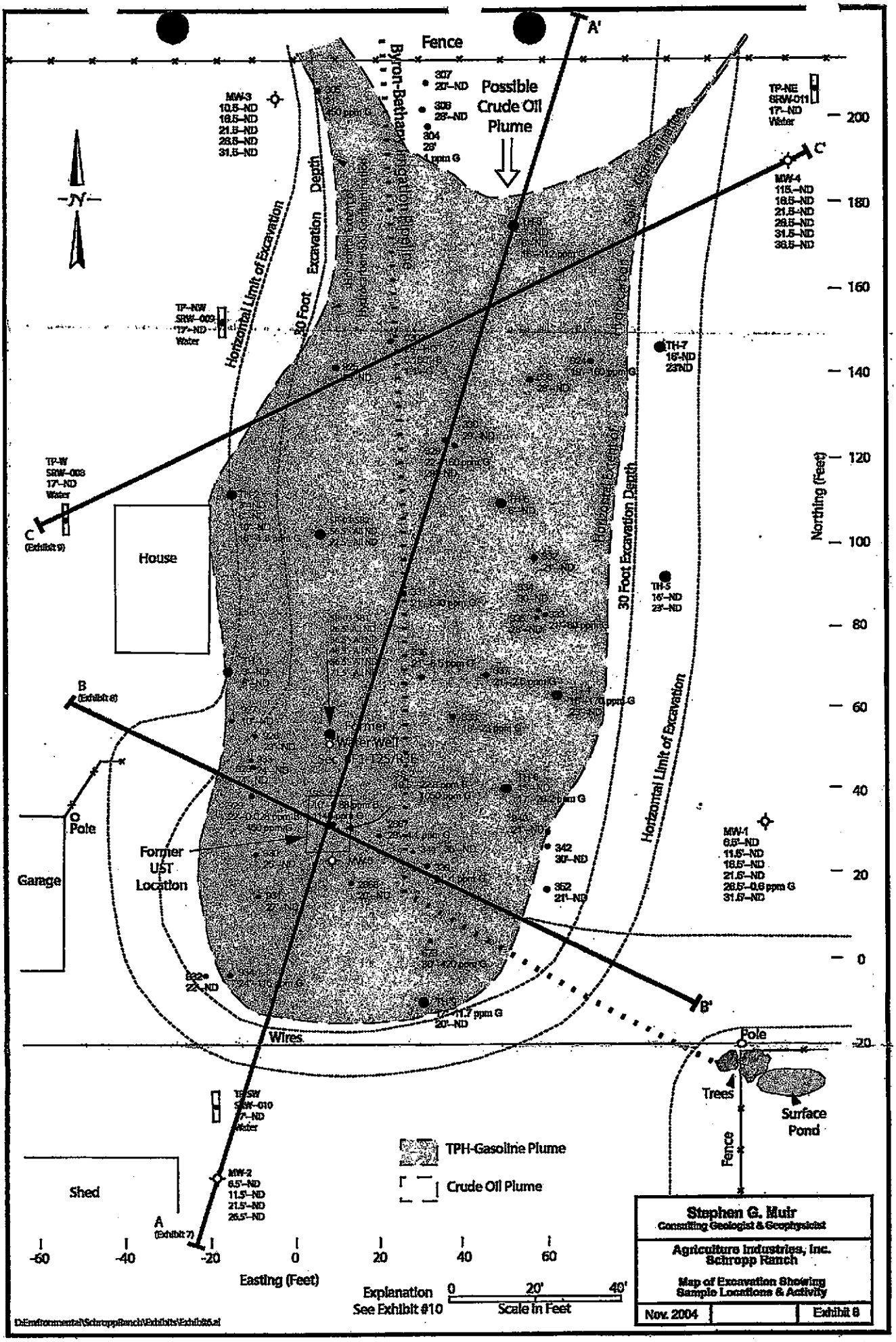

Southwest
C
Cross-Section
A-A'
Northeast
C'
TP-West
TH-2
TH-3
MW-4
SR-03-SB2
DARK BROWN SILTY SAND
DARK BROWN SILT & FINE-GRAINED SAND
DARK BROWN CLAYEY SILT
3 ND
6 ND
10 ND
16 ND
23 ND
3 ND
6ND
11.5 ND
16.5 ND
21.5 ND
20.5 ND
31.5 ND
WATER ND B
ND G
Fluctuation in Groundwater Table
0 PPM
19 12 PPM B
12 PPM G
925
ND
0 PPM
Limit of Excavation
Depth in Feet Below Ground Surface
0
10
20
30
40
50
60
70
All ND
All ND
Groundwater sample
SR-03-SB1-71.5'Water
All ND
TD 73.5'
Explanation
See Exhibit #10
Vertical Scale Exaggerated 2x
Stephen G. Muir
Consulting Geologist & Geophysicist
Agriculture Industries, Inc.
Schropp Ranch
Cross-Section C-C'
Nov. 2004
Exhibit 9
D:Environmental\SchroppRanch\Exhibits\Exhibit9.ai


Fence
A'
Possible Crude Oil Plume
Byron-Bethany Irrigation Pipeline
MW-3
10.5'–ND
16.5'–ND
21.5'–ND
26.5'–ND
31.5'–ND
TP-NE
SRW-011
17'–ND
Water
MW-4
11.5'–ND
16.5'–ND
21.5'–ND
26.5'–ND
31.5'–ND
36.5'–ND
C'
TP-NW
SRW-009
17'–ND
Water
Horizontal Limit of Excavation
30 Foot Excavation Depth
TH-7
16'–ND
23'ND
TP-W
SRW-008
17'–ND
Water
C
(Exhibit 9)
House
TH-5
16'–ND
23'–ND
B
(Exhibit 8)
Former Water Well
Pole
Former UST Location
Garage
MW-1
6.5'–ND
11.5'–ND
16.5'–ND
21.5'–ND
26.5'–0.6 ppm G
31.5'–ND
342
30'–ND
352
21'–ND
B'
Wires
Pole
Trees
Surface Pond
Fence
TP-SW
SRW-010
17'–ND
Water
MW-2
6.5'–ND
11.5'–ND
21.5'–ND
26.5'–ND
Shed
A
(Exhibit 7)
TPH-Gasoline Plume
Crude Oil Plume
-60
-40
-20
0
20
40
60
Easting (Feet)
200
180
160
140
120
100
80
60
40
20
0
-20
Northing (Feet)
Explanation
See Exhibit #10
0
20'
40'
Scale in Feet
Stephen G. Muir
Consulting Geologist & Geophysicist
Agriculture Industries, Inc.
Schropp Ranch
Map of Excavation Showing
Sample Locations & Activity
Nov. 2004
Exhibit 8
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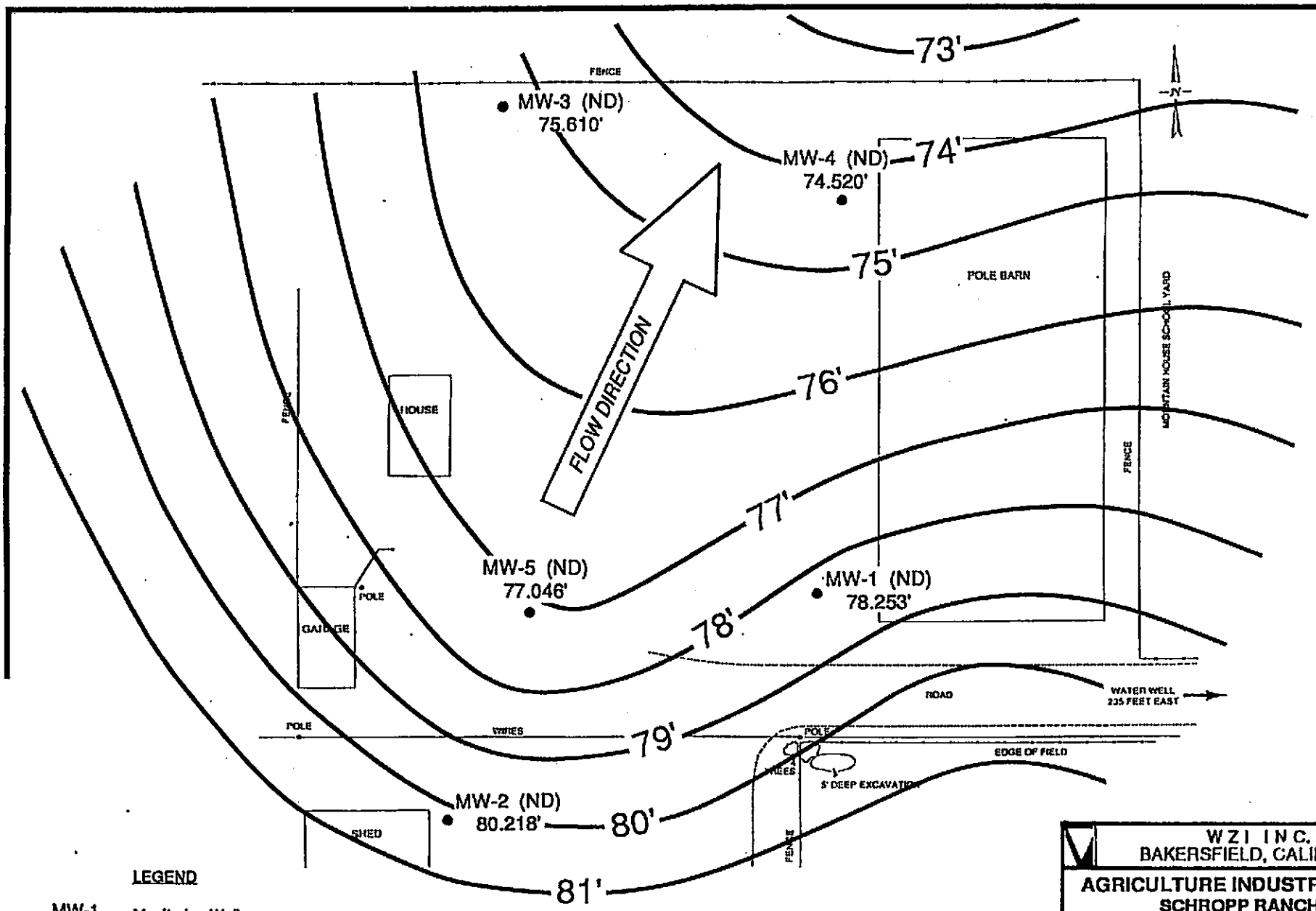
ATTACHMENT 4



LEGEND

● MW-1	Monitoring Well
ND	All analyses are below laboratory detection limits
78.253	Measured ground water surface elevation in feet above mean sea level

WZI INC.
BAKERSFIELD, CALIFORNIA

AGRICULTURE INDUSTRIES INC.
SCHROPP RANCH
GROUND WATER SURFACE
CONTOUR MAP
7/11/94

DATE			Appendix
10/94	0137.0010A		VII-2

Table 1
Summary of Soil Sample Analytical Results

Sample	Date	U.S. EPA Test Method 8015M	U.S. EPA Test Method 8020 All results in mg/kg			
		TPH-G (mg/kg)	Benzene	Toluene	Ethylbenzene	Xylene
SS-1	04/20/92	0.114	0.88	10.20	4.80	46.0
SS-2	04/20/92	1050	22.80	44.40	7.10	33.0
Soil 8	07/02/92	104	ND	0.11	0.026	0.308
Soil 7	07/02/92	6.0	ND	0.008	0.006	0.006
Soil 6	07/02/92	80.0	ND	0.045	0.015	0.115
Soil 5	07/02/92	6.0	ND	0.008	ND	0.007
Soil 4	07/02/92	2.4	ND	0.009	ND	ND
Soil 3	07/02/92	ND	ND	ND	ND	ND
Soil 2	07/02/92	ND	ND	ND	ND	ND
Soil 1	07/02/92	2.6	ND	0.005	ND	0.004
Soil T-1	07/02/92	ND	ND	ND	ND	ND
TH-2-16	07/07/92	1.8	ND	ND	0.003	0.004
TH-2-23	07/07/92	ND	ND	ND	ND	ND
TH-3-16	07/07/92	112	1.2	0.23	0.79	0.475
TH-4-16	07/07/92	170	0.052	0.77	0.175	0.400
TH-4-23	07/07/92	ND	ND	ND	ND	ND
TH-5-16	07/07/92	1.0	ND	0.003	ND	ND
TH-7-23	07/08/92	ND	ND	ND	ND	ND
TH-7-16	07/08/92	ND	ND	ND	ND	ND
TH-6-23	07/08/92	ND	ND	ND	ND	ND
TH-6-16	07/08/92	ND	ND	0.006	ND	ND
TH-8-15	07/08/92	ND	ND	ND	ND	ND
TH-8-17	07/08/92	26.2	ND	0.079	0.011	0.065
TH-9-20	07/08/92	ND	ND	ND	ND	ND
TH1-3	08/12/92	ND	ND	ND	ND	ND
TH1-6	08/12/92	ND	ND	ND	ND	ND
TH2-3	08/12/92	ND	ND	ND	ND	ND

ATTACHMENT 5

Table 1
Summary of Soil Sample Analytical Results

Sample	Date	U.S. EPA Test Method 8015M	U.S. EPA Test Method 8020 All results in mg/kg			
		TPH-G (mg/kg)	Benzene	Toluene	Ethylbenzene	Xylene
TH2-6	08/12/92	ND	ND	ND	ND	ND
TH2-10	08/12/92	ND	ND	ND	ND	ND
TH3-3	08/12/92	ND	ND	ND	ND	ND
TH3-6	08/12/92	ND	ND	ND	ND	ND
SS 40N 20E	06/17/93	4.1	0.390	0.008	0.003	0.015
SS 30N 20E	06/17/93	14.0	0.080	0.008	0.011	0.023
150N 30E	07/01/93	1.1	0.180	0.003	ND	ND
200N 20E	07/01/93	1.0	0.078	0.003	ND	0.009
210N 5E	07/01/93	450	0.031	0.420	0.330	1.4
200N 40E	07/01/93	ND	ND	ND	ND	ND
210N 40E	07/01/93	ND	ND	ND	ND	ND
210N 100E	07/07/93	285	0.035	0.250	0.270	0.920
210N 100E	07/07/93	325	0.040	1.0	0.620	1.40
200N 90E	07/07/93	ND	ND	ND	ND	0.004
180N 60E	07/08/93	160	0.004	0.40	0.72	1.25
180N 60E	07/08/93	ND	ND	ND	ND	ND
130N 45E	07/08/93	530	0.015	0.71	1.50	2.30
140N 90E	07/08/93	ND	ND	ND	ND	ND
120N 90E	07/08/93	80.0	0.008	0.20	0.145	0.46
120N 90E	07/12/93	ND	ND	ND	ND	ND
115N 90E	07/13/93	ND	ND	ND	ND	ND
100N 50E	07/13/93	6.5	0.041	0.019	0.018	0.078
100N 70E	07/13/93	2.5	0.007	0.020	0.020	0.350
85N 60E	07/13/93	23.0	0.004	0.036	0.036	0.300
35N 50E	07/14/93	1	ND	ND	0.003	0.007
45N 90E	07/14/93	ND	ND	ND	ND	ND
40N 45E	07/14/93	ND	0.004	ND	ND	ND
40N 90E	07/14/93	ND	0.003	ND	ND	ND

Table 1
Summary of Soil Sample Analytical Results

Sample	Date	U.S. EPA Test Method 8015M	U.S. EPA Test Method 8020 All results in mg/kg			
		TPH-G (mg/kg)	Benzene	Toluene	Ethylbenzene	Xylene
10N 50E	07/16/93	3.2	ND	ND	ND	0.005
0N 50E	07/16/93	420	0.23	4.0	0.10	150.0
0N 90E	07/16/93	ND	ND	ND	ND	ND
80N 5W	07/19/93	ND	0.005	ND	ND	ND
90N 10W	07/19/93	ND	ND	ND	ND	ND
70N 5W	07/19/93	ND	ND	ND	ND	ND
60N 5W	07/19/93	ND	0.028	0.003	ND	0.007
40N 5W	07/19/93	ND	0.017	ND	ND	ND
25N 5W	07/19/93	ND	0.003	0.005	ND	0.006
0N 18W	07/19/93	ND	ND	ND	ND	ND
70N 5W	07/19/93	ND	ND	0.003	ND	0.003
0N 12W	07/19/93	115	1.25	1.8	0.26	2.50
205N 110E	07/19/93	160	0.014	0.78	1.25	2.65
205N 110E	07/19/93	ND	ND	ND	ND	ND
MW 1-11.5	09/24/93	ND	ND	ND	ND	ND
MW 1-16.5	09/24/93	ND	ND	ND	ND	ND
MW 1-21.5	09/24/93	ND	ND	ND	ND	ND
MW 1-26.5	09/24/93	1.6	ND	ND	ND	0.007
MW 1-31.5	09/24/93	ND	ND	ND	ND	0.004
MW 2-11.5	09/26/93	ND	ND	ND	ND	ND
MW 2-16.5	09/26/93	ND	ND	ND	ND	ND
MW 2-21.5	09/26/93	ND	ND	ND	ND	ND
MW 2-26.5	09/26/93	ND	ND	ND	ND	ND
MW 2-31.5	09/26/93	ND	ND	ND	ND	ND
MW 3-11.5	10/02/93	ND	ND	ND	ND	ND
MW 3-16.5	10/02/93	ND	ND	ND	ND	ND
MW 3-21.5	10/02/93	ND	ND	ND	ND	ND
MW 3-26.5	10/02/93	ND	ND	ND	ND	ND

Table 1
Summary of Soil Sample Analytical Results

Sample	Date	U.S. EPA Test Method 8015M	U.S. EPA Test Method 8020 All results in mg/kg			
		TPH-G (mg/kg)	Benzene	Toluene	Ethylbenzene	Xylene
MW 3-31.5	10/02/93	ND	ND	ND	ND	ND
MW 4-11.5	10/11/93	ND	ND	ND	ND	ND
MW 4-16.5	10/11/93	ND	ND	ND	ND	ND
MW 4-21.5	10/11/93	ND	ND	ND	ND	ND
MW 4-26.5	10/11/93	ND	ND	ND	ND	ND
MW 4-31.5	10/11/93	ND	ND	ND	ND	ND
MW 4-36.5	10/11/93	ND	ND	ND	ND	0.015

Table 2
Summary of Groundwater Sample Analytical Results

Sample	Date	U.S. EPA Test Method 8015M	U.S. EPA Test Method 602 All results in µg/L			
		TPH-G (µg/L)	Benzene	Toluene	Ethylbenzene	Xylene
001	02/04/92	0.20	ND	ND	ND	ND
Water, 27'	04/21/92	27,500	1,180	1,650	8,265	8,775
School Well	11/11/92	NN	ND	0.001	ND	ND
Well Sample#1	11/11/92	79,000	7,050	2,830	2.30	2.16
Well Sample#2	11/11/92	53,000	8,050	3,160	2,450	1,750
Water MHS-001	11/25/92	ND	ND	ND	ND	ND
Water SRW-002	11/25/92	155	13	7.0	0.9	6.0
SRW-001 Baker Tank	11/30/92	30,900	670	1610	405	1390
SRW-002 Pond	11/30/92	188,000	9970	13,150	330	7300
SRW-003 Baker Tank #2	12/01/92	29,100	970	2240	270	1730
SRW-005 Tank #14	12/03/92	515	ND	0.6	0.3	1.3
SRW-006 Tank #1	12/03/92	2520	ND	4.0	0.4	105
SRW-007 Pond	12/03/92	20,800	1260	2030	81	320
SRW-008 TP-West	12/05/92	ND	ND	ND	ND	ND
SRW-009 TP-NW	12/06/92	ND	ND	ND	ND	ND
SRW-010 TP-SW corner	12/06/92	ND	ND	ND	ND	ND
SRW-011 TP-NE corner	12/06/92	ND	ND	ND	ND	ND
SPW-012 TP-Far West	12/06/92	ND	ND	ND	ND	ND
Tank 2507	01/27/93	ND	ND	ND	ND	ND
Pit Water	01/27/93	650	12	13	ND	15
Water	04/21/93	LEAD ND				
Water	04/21/93	65	0.5	0.6	0.6	2.8
Tank 1	06/22/93	65	9.0	0.9	ND	ND
Tank 4	06/22/93	ND	ND	ND	ND	ND

ATTACHMENT 6

Table 2
Summary of Groundwater Sample Analytical Results

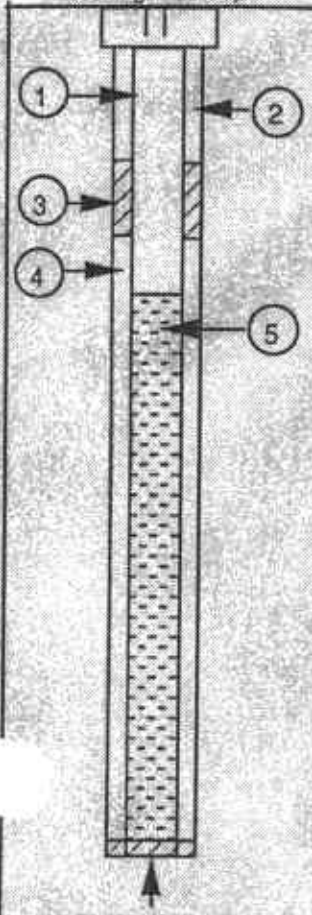
Sample	Date	U.S. EPA Test Method 8015M	U.S. EPA Test Method 602 All results in µg/L			
		TPH-G (µg/L)	Benzene	Toluene	Ethylbenzene	Xylene
School Well	06/22/93	ND	ND	ND	ND	ND
Tank	07/01/93	ND	ND	ND	ND	ND
Tank	07/19/93	ND	ND	ND	ND	ND
SW corner excavation	07/22/93	2900	40	12	6.5	200
School Well	03/29/94	ND	ND	ND	ND	ND
MW 1-100	03/29/94	ND	ND	ND	ND	ND
MW 2-110	03/29/94	ND	ND	ND	ND	ND
MW 3-120	03/29/94	ND	ND	ND	ND	ND
MW 4-130	03/29/94	ND	ND	ND	ND	ND
MW 5-140	03/29/94	ND	ND	ND	ND	ND
1	07/11/94	ND	ND	ND	ND	ND
2	07/11/94	ND	ND	ND	ND	ND
3	07/11/94	ND	ND	ND	ND	ND
4	07/11/94	ND	ND	ND	ND	ND
5	07/11/94	ND	ND	ND	ND	ND
6	07/11/94	ND	ND	ND	ND	ND
MW 1	06/01/95	ND	ND	ND	ND	ND
MW 2	06/01/95	ND	ND	ND	ND	ND
MW 3	06/01/95	ND	ND	ND	ND	ND
MW 4	06/01/95	ND	ND	ND	ND	ND
MW 5	06/01/95	ND	ND	ND	ND	ND
School Well	06/01/95	ND	ND	ND	ND	ND
Schropp Well	08/16/95	ND	ND	ND	ND	ND
		MO-ND				
SR MW-2	10/30/95	ND	ND	ND	ND	ND
SR MW-3	10/30/95	ND	ND	ND	ND	ND
SR MW-4	10/30/95	ND	ND	ND	ND	ND
SR MW-5	10/30/95	ND	ND	ND	ND	ND
School Well	10/30/95	ND	ND	ND	ND	ND

Table 2
Summary of Groundwater Sample Analytical Results

Sample	Date	U.S. EPA Test Method 8015M	U.S. EPA Test Method 602 All results in µg/L			
		TPH-G (µg/L)	Benzene	Toluene	Ethylbenzene	Xylene
MW 2	04/07/96	ND	ND	ND	ND	ND
MW 3	04/07/96	ND	ND	ND	ND	ND
MW 4	04/07/96	ND	ND	ND	ND	ND
MW 5	04/07/96	ND	ND	ND	ND	ND
Schropp Water Well	08/25/95	ND	ND	ND	ND	ND
SR MW-1	03/06/02	ND	ND	ND	ND	ND
SR MW-2	03/06/02	ND	ND	ND	ND	ND
SR MW-3	03/06/02	DRY				
SR MW-4	03/06/02	ND	ND	ND	ND	ND
SR MW-5	03/06/02	ND	ND	ND	ND	ND
School Well	03/06/02	ND	ND	ND	ND	ND

LOG OF MW - 1

WELL COMPLETION DIAGRAM	ANALYSES Lab Benzene TPH ppm	ANALYSES Field Hnu P.I.D. ppm	Blowcount	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	lithology symbol	u.s.c.s. desig	SOIL DESCRIPTION
Locking Well Cap				0					DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
				5					
	ND ND	0	6 11 22	10		MW-1-11.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND ND	0	5 12 21	15		MW-1-16.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND ND	0	6 13 22	20		MW-1-21.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND ND	0	8 15 31	25		WL-1-26.5			DARK BROWN, FINE TO MEDIUM GRAINED SAND, LOCAL GRAVEL BED TO 1 FOOT THICK. NO PETROLEUM ODOR.
	ND ND	0	8 17 35	30		MW-1-31.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
				35					
				40					
				45					



1. BLANK CASING 2" SCHEDULE 40 PVC
2. CEMENT SURFACE SEAL
3. 3' BENTONITE SEAL
4. MONTEREY NO. 2 SAND PACK
5. SCREENED CASING

SURFACE ELEVATION: 89.853
TOTAL DEPTH: 31.5 FEET
DATE DRILLED: 9-26-93

LOGGED BY: S. G. MUIR
DIAMETER OF BORING: 8"
WATER ENCOUNTERED AT: 15.020'

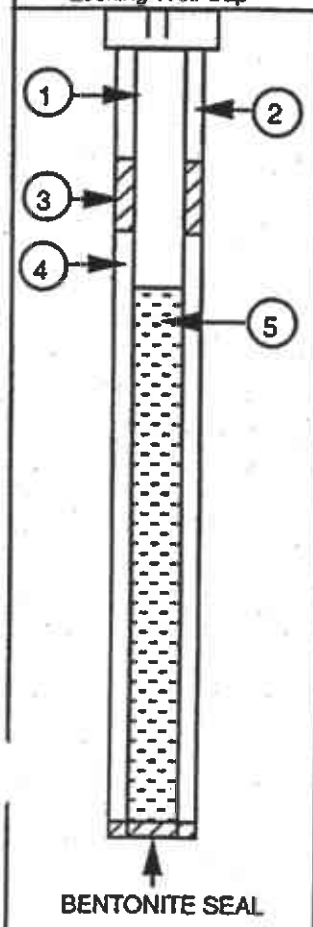
AGRICULTURE INDUSTRIES
SCHROPP RANCH
0137.0010

WZI

LOCATION: SOUTHEAST CORNER MAIN YARD

ATTACHMENT 7

LOG OF MW - 2



1. BLANK CASING 2" SCHEDULE 40 PVC
2. CEMENT SURFACE SEAL
3. 3' BENTONITE SEAL
4. MONTEREY NO. 2 SAND PACK
5. SCREENED CASING

WELL COMPLETION DIAGRAM	ANALYSIS Lab Benzene TPH ppm	ANALYSIS Field Hnu P.I.D. ppm	Blowcount	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	lithology symbol	u.s.c.s. desig	SOIL DESCRIPTION
		0		0					DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
				5					
	ND	0	5	10		MW-2-11.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		10						
			21						
	ND	0	5	15		MW-2-16.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		11						
			21						
	ND	0	6	20		MW-2-21.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		14						
			23						
	ND	0	8	25		WL-2-26.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		16						
			30						
	ND	0	8	30		MW-2-31.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		18						
			34						
				35					
				40					
				45					

SURFACE ELEVATION: 91.848
TOTAL DEPTH: 31.5 FEET
DATE DRILLED: 9-26-93

LOGGED BY: S. G. MUIR
DIAMETER OF BORING: 8"
WATER ENCOUNTERED AT: 15.0900'

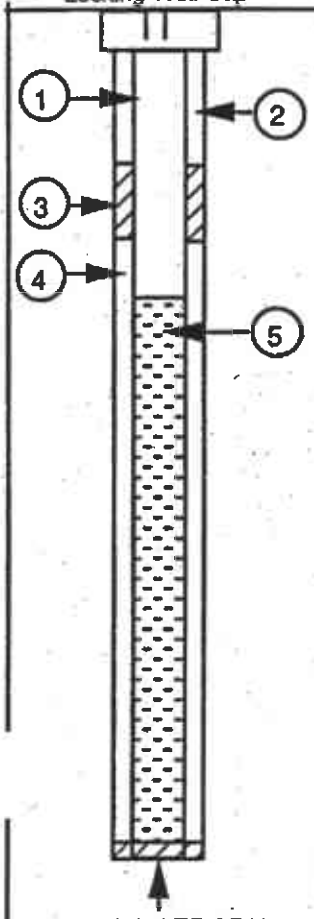
AGRICULTURE INDUSTRIES
SCHROPP RANCH
0137.0010

LOCATION: SOUTHWEST CORNER MAIN YARD

WZI

LOG OF MW - 3

WELL COMPLETION DIAGRAM	ANALYSES Lab Benzene TPH ppm	ANALYSES Field Hnu P.I.D. ppm	Blowcount	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	lithology symbol	u.s.c.s. desig	SOIL DESCRIPTION
Locking Well Cap				0					DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
				5					
	ND ND	0	6 10 21	10		MW-3-11.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND ND	0	5 11 22	15		MW-3-16.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND ND	0	6 14 25	20		MW-3-21.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND ND	0	8 17 32	25		WL-3-26.5			DARK BROWN, FINE TO MEDIUM GRAINED SAND, LOCAL GRAVEL BEDS UP TO 2 FEET THICK . NO PETROLEUM ODOR.
	ND ND	0	8 18 37	30		MW-3-31.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
				35					
				40					
				45					



1. BLANK CASING 2" SCHEDULE 40 PVC
2. CEMENT SURFACE SEAL
3. 3' BENTONITE SEAL
4. MONTEREY NO. 2 SAND PACK
5. SCREENED CASING

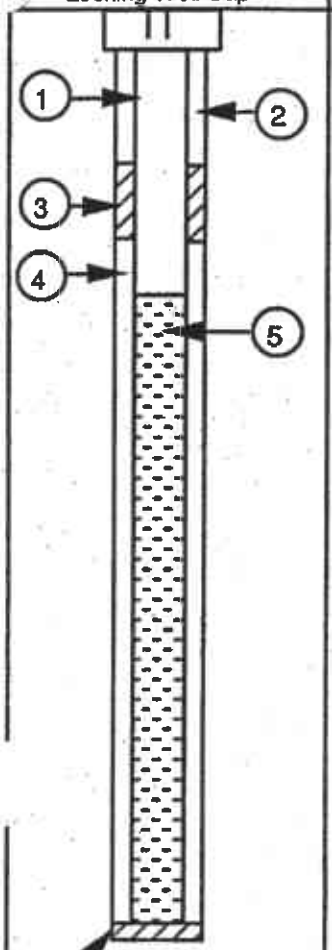
SURFACE ELEVATION: 89.240
TOTAL DEPTH: 31.5 FEET
DATE DRILLED: 9-26-93

LOGGED BY: S. G. MUIR
DIAMETER OF BORING: 8"
WATER ENCOUNTERED AT: 16.550'

AGRICULTURE INDUSTRIES
SCHROPP RANCH
0137.0010
WZI

LOCATION: NORTHWEST CORNER MAIN YARD

LOG OF MW - 4

WELL COMPLETION DIAGRAM	ANALYSES Lab Benzene TPH ppm	ANALYSES Field Hnu P.I.D. ppm	Blowcount	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	lithology symbol	u.s.c.s. desig	SOIL DESCRIPTION
				0					DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
				5					
	ND	0	5	10		MW-4-11.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		10						
			21						
	ND	0	5	15		MW-4-16.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		11						
			20						
	ND	0	6	20		MW-4-21.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		14						
			21						
	ND	0	8	25		WL-4-26.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	ND		14						
			30						
	ND	0	8	30		MW-4-31.5			DARK BROWN, FINE TO MEDIUM GRAINED SAND, LOCAL GRAVEL BEDS UP TO 4 FEET THICK . NO PETROLEUM ODOR.
	ND		18						
			36						
	ND		8	35		MW-4-31.5			DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR.
	1.3		19						
			40						
				40					
				45					

Locking Well Cap

BENTONITE SEAL

1. BLANK CASING 2" SCHEDULE 40 PVC
2. CEMENT SURFACE SEAL
3. 3' BENTONITE SEAL
4. MONTEREY NO. 2 SAND PACK
5. SCREENED CASING

SURFACE ELEVATION: 88.180
TOTAL DEPTH: 36.5 FEET
DATE DRILLED: 10-14-93

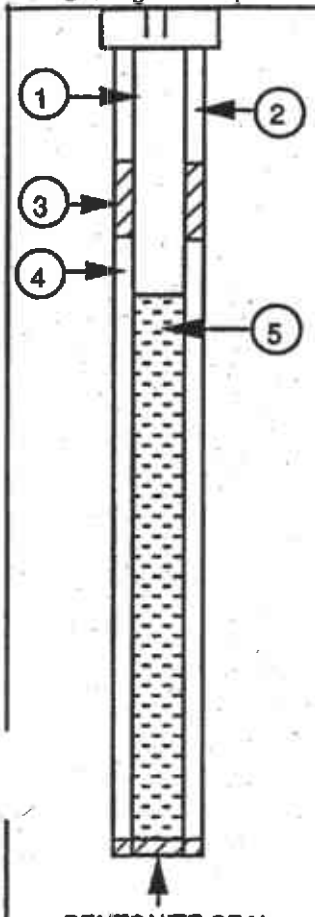
LOGGED BY: S. G. MUIR
DIAMETER OF BORING: 8"
WATER ENCOUNTERED AT: 17.820'

AGRICULTURE INDUSTRIES
SCHROPP RANCH
0137.0010

LOCATION: NORTHEAST CORNER MAIN YARD

WZI

LOG OF MW - 5

WELL COMPLETION DIAGRAM	ANALYSES Lab: Benzene TPH ppm	ANALYSES Field: Hnu P.I.D. ppm	Blowcount	DEPTH (feet)	SAMPLE INTERVAL	SAMPLE NUMBER	lithology symbol	u.s.c.s. desig	SOIL DESCRIPTION
Locking Well Cap  BENTONITE SEAL 1 BLANK CASING 2" SCHEDULE 40 PVC 2 CEMENT SURFACE SEAL 3 3' BENTONITE SEAL 4 MONTEREY NO. 2 SAND PACK 5 SCREENED CASING		0 0 0 0	6 10 23 5 13 22 6 14 23 8 16 32 8 18 36	0 5 10 15 20 25 30 35 40 45					DARK BROWN, FINE GRAINED SAND AND SILT, MOIST, MICACEOUS. NO PETROLEUM ODOR. ARTIFICIAL FILL PLACED IN EXCAVATION TO 35 FEET.

SURFACE ELEVATION:90.166
TOTAL DEPTH: 31.5 FEET
DATE DRILLED: 10-14-93

LOGGED BY: S. G. MUIR
DIAMETER OF BORING: 8"
WATER ENCOUNTERED AT: 17.420'

AGRICULTURE INDUSTRIES
SCHROPP RANCH
0137.0010

WZI

LOCATION: CENTER OF MAIN YARD

Boring No. SR-03-SB1

SOIL BORING REPORT

Project	Schropp Ranch	Project Number	N/A
Location	3880 Mountain House Road	Start Date/Time	11/20/03 Finish Date/Time 11/20/03 9:30AM
Drilled By	D&S Dragline Service Inc.	Logged By	Clear / Cook Reviewed By
Drilling Method	Continuous Flite Auger	Weather/Temp(°F)	PID - MiniRae 2000
Bit Type	Auger Bit Size 10"	Field Monitor	Dirt
Sampling	California Split Spon Sampler (18")	Surface Conditions	88.5 feet (Mean Sea Level)
		Ground Elevation	

Water Level Information		
Depth to Groundwater (ft)	27.0' bgs	
Date - Time	11/20/03	
Depth of Hole (ft)	71.5' bgs	

Time	Sampled Depth Interval and Number	Soil Boring Completion Schematic	Depth (ft)	Laboratory Analysis	Graphic Log	Soil Group Symbol (USCS)	Soil Description
0820						SM	FINE GRAINED SAND AND SILT: Dark Brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
0845	SR-03-SB1 -11.5		10	NA		SM	FINE GRAINED SAND AND SILT: Dark Brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
0908	SR-03-SB1 -16.5			NA		SM	FINE GRAINED SAND AND SILT: Dark brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
0920	SR-03-SB1 -21.5		20	NA		SM	FINE GRAINED SAND AND SILT: Dark brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
0935	SR-03-SB1 -26.5			ND		SM	FINE GRAINED SAND AND SILT: Dark brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
							Groundwater encountered at 27.0' bgs. No petro odor on groundwater surface.
0955	SR-03-SB1 -31.5		30	NA		ML	CLAYEY SILT: Light brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1035	SR-03-SB1 -36.5			ND		ML	CLAYEY SILT: Light brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1050	SR-03-SB1 -41.5		40	NA		SM	FINE GRAINED SILTY SAND: Dark brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1110	SR-03-SB1 -46.5			ND		SM	FINE GRAINED SILTY SAND: Light brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1117	SR-SB1 -48.0 Water		50	ND			
1130	SR-03-SB1 -51.5			NA		CL	SILTY CLAY: Light brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1156	SR-03-SB1 -56.5			ND		CL	SILTY CLAY: Light brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1210	SR-03-SB1 -61.5		60	NA		CL	SILTY CLAY: Reddish tan color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1301	SR-03-SB1 -71.5		70	ND		CL	SANDY CLAY: Reddish tan color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1340	SR-SB1 -73.5 Water			ND			

SOIL BORING COMPLETION NOTES: Boring drilled with continuous flite auger and sampled. Boring backfilled with neat cement to within 3 feet of surface. Native soil at surface. Cuttings placed in USDOT drum on site and labeled as "soil boring cuttings". Rinse water from steam cleaning drummed in 55 gallonUS DOT drums, labeled, and stored on site for future disposal.

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Boring No. SR-03-SB2

SOIL BORING REPORT

Project	Schropp Ranch	Project Number	N/A
Location	3880 Mountain House Road	Start Date/Time	11/20/03 — Finish Date/Time 11/21/03
Drilled By	D&S Dragline Service Inc.	Logged By	SGM — Reviewed By
Drilling Method	Continuous Flite Auger	Weather/Temp(°F)	Clear / Cool
Bit Type	Auger — Bit Size 10"	Field Monitor	PID - MiniRae 2000
Sampling	California Split Spon Sampler (18")	Surface Conditions	Dirt
		Ground Elevation	89.5 feet (Mean Sea Level)

Water Level Information

Depth to Groundwater (ft)	26.0' bgs		
Date - Time	11/21/03		
Depth of Hole (ft)	74.5' bgs		

Time	Sampled Depth Interval and Number	Depth (ft)	Laboratory Analysis	Soil Group Symbol (USCS)	Soil Description
1400 11/20/03				SM	FINE GRAINED SAND AND SILT: Dark Brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1415	SR-03-SB2 -11.5	10	NA	SM	FINE GRAINED SAND AND SILT: Dark Brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1430	SR-03-SB2 -16.5		NA	SM	FINE GRAINED SAND AND SILT: Dark Brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1445	SR-03-SB2 -21.5	20	NA	SM	FINE GRAINED SAND AND SILT: Dark Brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1530	SR-03-SB2 -26.5		NA	SM	FINE GRAINED SAND AND SILT: Dark Brown color, moist, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
					Groundwater encountered at 26.0' bgs. No petro odor on groundwater surface.
1545 11/21/03	SR-03-SB2 -31.5	30	NA	CL	SILTY CLAY: Light Brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1035	SR-03-SB2 -36.5		NA	ML	CLAYEY SILT: Light Brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
0833	SR-03-SB2 -41.5	40	NA	SM	FINE GRAINED SILTY SAND: Light Brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
0853	SR-03-SB2 -46.5		ND	SM	FINE GRAINED SILTY SAND: Light Brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
0930	SR-03-SB2 -51.5	50	NA	CL	SILTY CLAY: Light Brown color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1000	SR-03-SB2 -56.5		ND	CL	SILTY CLAY: Reddish Tan color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1025	SR-SB2 -59.5 Water	60	ND		
1045	SR-03-SB2 -61.5		NA	CL	SILTY CLAY: Reddish Tan color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1110	SR-03-SB2 -66.5		NA	CL	SILTY CLAY: Reddish Tan color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID).
1135	SR-03-SB2 -71.5	70	ND	CL	SANDY CLAY: Reddish Grey color, wet, micaceous, slight to moderately dense; no petro odor (0 ppmv on PID). Significant volume of iron oxide casts.
1155	SR-SB2 -74.5 Water		ND		

SOIL BORING COMPLETION NOTES: Boring drilled with continuous flite auger and sampled. Boring backfilled with neat cement to within 3 feet of surface. Native soil at surface. Cuttings placed in USDOT drum on site and labeled as "soil boring cuttings". Rinse water from steam cleaning drummed in 55 gallon US DOT drums, labeled, and stored on site for future disposal.

RO 2473

California Regional Water Quality Control Board

Central Valley Region

Robert Schneider, Chair

Alan C. Lloyd, Ph.D.
Agency Secretary

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http://www.swrcb.ca.gov/rwqcb5

Arnold Schwarzenegger
Governor

21 February 2006

Mr. Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

NO FURTHER ACTION REQUIRED CONCURRENCE, FORMER SCHROPP RANCH – WESTERN PROPERTY, 3880 MOUNTAIN HOUSE ROAD, ALAMEDA COUNTY

Board staff reviewed the 3 January 2006 *Case Closure Summary* submitted by the Alameda County Environmental Health Department (County) and the site file for the above reference site. With the provision that the information provided to this agency was accurate and representative of site conditions, Board staff concur with the County's closure recommendation.

Until we receive notification from you that monitoring wells have been properly destroyed, transferred, or will remain in use according to the County Well Ordinance, and the County issues a Case Closure Letter, the site will be considered an open case.

If you have any further questions, please contact David Stavarek at (916) 464-4673.

Brian Newman

BRIAN C. NEWMAN, P.E.
Underground Tank Program Manager
Central Valley Region

Enclosure (NFAR Checklist)

cc w/encls.: Mr. Richard Jones, Representative for Property Owner, West Sacramento
Mr. Stephen Muir, Consultant

ATTACHMENT 8

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California Regional Water Quality Control Board
Central Valley Region
Robert Schneider, Chair

Alan C. Lloyd, Ph.D.
Agency Secretary

Arnold Schwarzenegger
Governor

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TO:	Cori Condon, P.G. Senior Engineering Geologist UST Unit III	**FROM:**	David Stavarek, P.G. Engineering Geologist UST Unit II
DATE:	16 February 2006	**SIGNATURE:**	David F. Stavarek

SUBJECT: FORMER SHROPP RANCH – WESTERN PROPERTY, 3880 MOUNTAIN HOUSE ROAD, BYRON, ALAMEDA COUNTY (LUSTIS # 010002)

I reviewed the 27 December 2005 *Case Closure Summary* from Alameda County Environmental Health (ACEH) for the underground storage tank (UST) case at the Schropp Ranch (Ranch). The Ranch is located along the east side of the Coast Range Mountains in eastern Alameda County, approximately 10 miles northwest of Tracy. Following is a summary and my comments regarding this case and the criteria for concurring with ACEH's proposal to issue a No Further Action Required letter.

BACKGROUND

A 550-gallon UST was used on site from 1960 to 1986 as a residential gasoline tank. The UST was filled just three times between 1979 and 1986, and was located near the farmhouse on the Ranch. In 1991 the UST, dispenser, and associated piping were removed. Numerous holes were observed in the former UST, and stained soil was observed in the tank pit for the former USTs.

In October 1992 total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX) up to 79,000, 7,050, 2,830, 2,300, and 2,160 micrograms per liter (µg/L), respectively, were detected in an onsite water supply well located adjacent to the former UST. This water supply well was perforated below 50 feet, and was approximately 140 feet deep. Use of this well by people at the Ranch was discontinued in 1987 because of poor water quality, and in 1992 the well was destroyed under permit from ACEH and according to State and local ordinances. A replacement water supply well was installed 250 feet upgradient (southwest) of the former UST. It was perforated from approximately 245 to 275 feet below ground surface (bgs), the bottom 30 feet of the well. Samples collected from this well on 25 August 1995 were non-detect for TPHg and BTEX.

In November 1992, TPHg and BTEX were non-detect in a sample from a water sample collected from the Mountain House School water supply well. This well is 600 feet downgradient and east of the site, and used only for irrigation at the Mountain House School. No other water supply wells are within 500 feet of the site.

UST REMEDIATION

In April 1992, soil impacted by petroleum hydrocarbons was observed in two trenches excavated to 25 feet below ground surface (bgs) adjacent to the UST. A grab groundwater sample from the trench contained TPHg and BTEX at 27,500, 1,180, 1,650, 265, and 775 µg/L. Petroleum hydrocarbons were also detected in trenches and borings in 1992 over a wide area of the shop yard.

Based on these investigations a Feasibility Study was prepared that showed soil excavation to be a reasonable remedial alternative. In July and August 1992, approximately 19,000 cubic yards of soil impacted with gasoline hydrocarbons was removed from an excavation to 30 feet bgs. Seasonally, groundwater fluctuates from 11.6 to 25 feet bgs; therefore, the groundwater smear zone was removed. However, approximately 25 to 100 cubic yards of hydrocarbon-impacted soil was left in place beneath the farmhouse because it could not be safely excavated. The excavated soil was aerated onsite according to Bay Area Air Quality Management District guidelines then placed on farm roads. Soil samples from the bottoms and the sidewalls of the excavation showed only TPHg and xylenes at 1.6 and 0.007 milligrams per kilogram (mg/kg), respectively, in one sample, and 0.004 mg/kg of xylenes in one other sample. TPHg and BTEX were non-detect in all other soil samples from the excavation. The excavation was backfilled with clean overburden from the excavation and imported fill. Remediation of soil was estimated to have removed approximately 750 gallons of gasoline product. Groundwater was pumped from the excavation and remediated with carbon filtration system, then disposed onsite.

CRUDE OIL IN SOIL

In 1992 a layer of crude oil impacted soil, 22 to 25 feet bgs was removed from an area 20 to 30 feet from the north side of the property. The crude oil is thought to be from the Central Valley Pipeline that lies beneath the adjoining property north of the site. The pipeline was abandoned in place in 1970. There was no further investigation of the crude oil in soil north of the Ranch because access to the adjoining property was not given.

In May 1994 trenches were used to investigate crude oil contaminated soil along the Central Valley Pipeline easement east of the farmhouse area. Shell Oil Company investigated the crude oil impact to soil and remediated the soil and groundwater affected by the crude oil under Regional Water Quality Control Board oversight. In 1999, senior staff for the Spills, Leaks, Investigation, and Cleanup Section of this RWQCB issued a closure letter for the pipeline release on the Schropp Ranch. No additional work for the crude oil spill was required.

GROUNDWATER INVESTIGATION

In September 1993 five groundwater monitoring wells were installed to 30 to 35 feet bgs to further investigate the extent of petroleum hydrocarbons associated with the former UST. TPHg and BTEX were non-detect in these five wells during quarterly monitoring from March 1994 to April 1996. In March 2002, a final monitoring event showed TPHg, BTEX, MtBE, tertiary butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), ethanol, methanol, ethylene dibromide (EDB), and 1,2-dichloroethane (1,2-DCA) were non-detect in all five wells and the nearby water supply at the Mountain House School. The seven fuel oxygenates, EDB, and 1,2-DCA were analyzed using Environmental Protection Agency (EPA) Method 8260B.

In 2003 two borings were drilled to 70 to 75 feet bgs adjacent to the former water supply well on the Ranch to investigate the possible vertical extent of gasoline hydrocarbons. TPHg, BTEX, MtBE, TBA, DIPE, ETBE, TAME, EDB, and 1,2-DCA were non-detect in soil samples and groundwater samples collected at 50 feet bgs, and at the bottom of each boring (70 to 75 feet bgs).

SUMMARY

A 500-gallon gasoline UST was removed from the site and impacts to soil and groundwater were remediated by excavation and limited groundwater pumping. Although an onsite water supply well was destroyed because it had been impacted by the gasoline hydrocarbons, subsequent investigations showed no impacts to shallow and deep groundwater, and no impacts to a new onsite or nearby water supply well. Analytical data show that gasoline hydrocarbons were adequately removed and no longer pose a threat to groundwater. Residual soil concentrations pose no direct exposure risk to human health when compared to Region 2 Environmental Screening Levels. Impacts to soil and groundwater on site from a crude oil pipeline were also remediated. Therefore, after all monitoring wells have been destroyed the Regional Board staff will concur a No Further Action Required letter is appropriate for this site.

TABLE 1 - CHECKLIST OF REQUIRED DA
FOR NO FURTHER ACTION REQUESTS AT UNDERGROUND TANK SITES

Site Name and Location:	*Former Schropp Ranch – Western Portion, 3880 Mountain House Road, Byron, Alameda County*
[Y] 1. Distance to production wells for municipal, domestic, agriculture, industry and other uses within 2000 feet of the site;	*Onsite water supply well 250 ft. upgradient and sealed to 200 feet bgs. A water supply well 600 feet downgradient is used for irrigation, was sampled and determined not to be impacted.*
[Y] 2. Site maps, to scale, of area impacted showing locations of former and existing tank systems, excavation contours and sample locations, borings and monitoring wells elevation contours, gradients, and nearby surface waters, buildings, streets, and subsurface utilities	*One 550-gal gasoline UST was removed in 1991.*
[Y] 3. Figures depicting lithology (cross section), treatment system diagrams;	*Logs show predominantly sand and silt to 30 ft bgs, clayey silt/silty clay 30 to 40 ft bgs, silty sand 40 to 50 ft bgs, silty clay50 to 70 ft bgs, and sandy clay at 70 ft bgs. One log showed a gravel layer at approximately 30 to 34 ft bgs.*
[No] 4. Stockpiled soil remaining on-site or off-site disposal (quantity);	*Excavated soil was aerated on site and then placed on existing dirt roads on Ranch property.*
[Yes] 5. Monitoring wells remaining on-site, fate;	*Five monitoring wells onsite to be destroyed under permit from Alameda Co. and upon concurrence with No Further Action recommendation.*
[Y] 6. Tabulated results of all groundwater elevations and depths to water;	Groundwater is 15 to 25 feet bgs. Petroleum hydrocarbons were non-detect in the five-onsite monitoring wells during 1994, 1995, 1996, and 2002.
[Yes] 7. Tabulated results of all sampling and analyses: Detection limits for confirmation sampling; Lead analyses	*Gasoline hydrocarbons in soil to 26 ft bgs beneath the former UST. Residual soil contamination extends 170 f t east and west and approximately 360 ft north from former UST. Crude oil in soil at 22 to 25 ft bgs at north property boundary was excavated. Lead is non-detect.*
[Yes] 8. Concentration contours of contaminants found and those remaining in soil and groundwater, and both on-site and off-site: Lateral and Vertical extent of soil contamination; Lateral and Vertical extent of groundwater contamination	*Groundwater plume exist 26 ft bgs and extends north 360 ft and 80 ft south of former UST. Plume is 170 ft wide. Crude oil plume is 160 ft wide at north property boundary tapers to 20 ft wide 80 feet south of property boundary.*
[Y] 9. Zone of influence calculated and assumptions used for subsurface remediation system and the zone of capture attained for the soil and groundwater remediation system;	*Excavation removed both gasoline and crude oil impacted soils. Groundwater was pumped from the excavations, treated with carbon filtration, and then sprayed on nearby alfalfa field.*
[Yes] 10. Reports / information [Y] Unauthorized Release Form [Y] *QMRs see Alameda Co. Files*; Well and boring logs [ ] PAR [Y] FRP [ ]	
[Y] 11. Best Available Technology (BAT) used or an explanation for not using BAT;	*Excavation of impacted soils resulted in no impact to water quality.*
[Y] 12. Reasons why background was/is unattainable using BAT;	*Monitoring wells show that groundwater is non-detect for gasoline hydrocarbons.*
[N] 13. Mass balance calculation of substance treated versus that remaining;	*Mass remaining calculations were not provided. An estimated 25 to 100 CYs of impacted soil remain under the farmhouse because it could not be excavated.*
[Y] 14. Assumptions, parameters, calculations and model used in risk assessments, and fate and transport modeling;	*Remaining gasoline hydrocarbons in soil do not exceed the Environmental Screening Levels for residential land use.*
[Y] 15. Rationale why conditions remaining at site will not adversely impact water quality, health, or other beneficial uses; and	*Gasoline hydrocarbons in soil are not a risk to human health when compared to Region 2 ESLs and concentrations were not detected in groundwater after soil remediation.*
[NA] 16. WET or TCLP results	*Lead was not detected. WET or TCLP analysis not done.*
By: DFS Date: 2/7/2006	**Comments: A 500-gallon gasoline UST was removed from the site and impacts to soil and groundwater were remediated by excavation and limited groundwater pumping. Although an onsite water supply well was destroyed because it had been impacted by the gasoline hydrocarbons, subsequent investigations showed no impacts to shallow and deep groundwater, and no impacts to a new onsite or nearby water supply wells. Analytical data show that gasoline hydrocarbons were adequately removed and no longer pose a threat to human health or groundwater. Residual soil concentrations pose no direct exposure risk to human health when compared to Region 2 Environmental Screening Levels. Impacts to soil and groundwater on site from a crude oil pipeline were also remediated.**