Eastern Idaho Public Health
Prevent. Promote. Protect.

TETON COUNTY
820 Valley Centre Drive
Driggs, ID 83422
OFFICE (208) 354-2220
FAX (208) 354-2224

04/23/2024

RE: Daydream Ranch Subdivision

To All Concerned.

Minor plat adjustments, including changes in building envelopes, within the Daydream Ranch Subdivision will not require test holes. Recent test holes dug across the subdivision have shown ***NO*** evidence of groundwater above 10 feet (120 inches). The location of a residential structure has no bearing on the type or depth of a septic system. Minor plat changes such as building envelopes fall under the jurisdiction of the current HOA and the Planning and Zoning Department of Teton County. A change of this sort has no bearing on the State of Idaho subsurface wastewater disposal systems as regulated under IDAPA 58.01.03 legislated rules. No other lot owners should be sent to EIPH for comment on minor plat adjustments.

Six septic permits have been issued within the past 9 years in this subdivision. Most recently a test pit was dug and evaluated in April 2024. Test holes excavated for several of these projects and at the time of original development of the subdivision show the following soil horizon:

Soil Narrative Please note the following:
0-18 inches of silty loam with minor rock content (Topsoil)
18-114 inches gravely sandy loam. Medium sand. Minor fines. 25% well rounded pebbles up to 3-inch diameter. B1 Soil type.
No bedrock was encountered. There was no evidence of groundwater to depth. No accumulation of water. No mottling of the soil. No weeping of groundwater at any depth to 114 inches (9.5 feet).
Photos attached. Description above is the narrative for the photos.

No natural surface water flows on the or through the various lots of this subdivision. No natural ponding surface water exists on the property. An irrigation canal crosses a portionof the property. There is more than enough space to meet the State of Idaho horizontal separation from this canal.

Slope in minor to none across all properties.

Attached with this letter are several documents discussing the development of this subdivision. Please read them for further insight into the past surface and groundwater situation on the properties.

Kathleen Price

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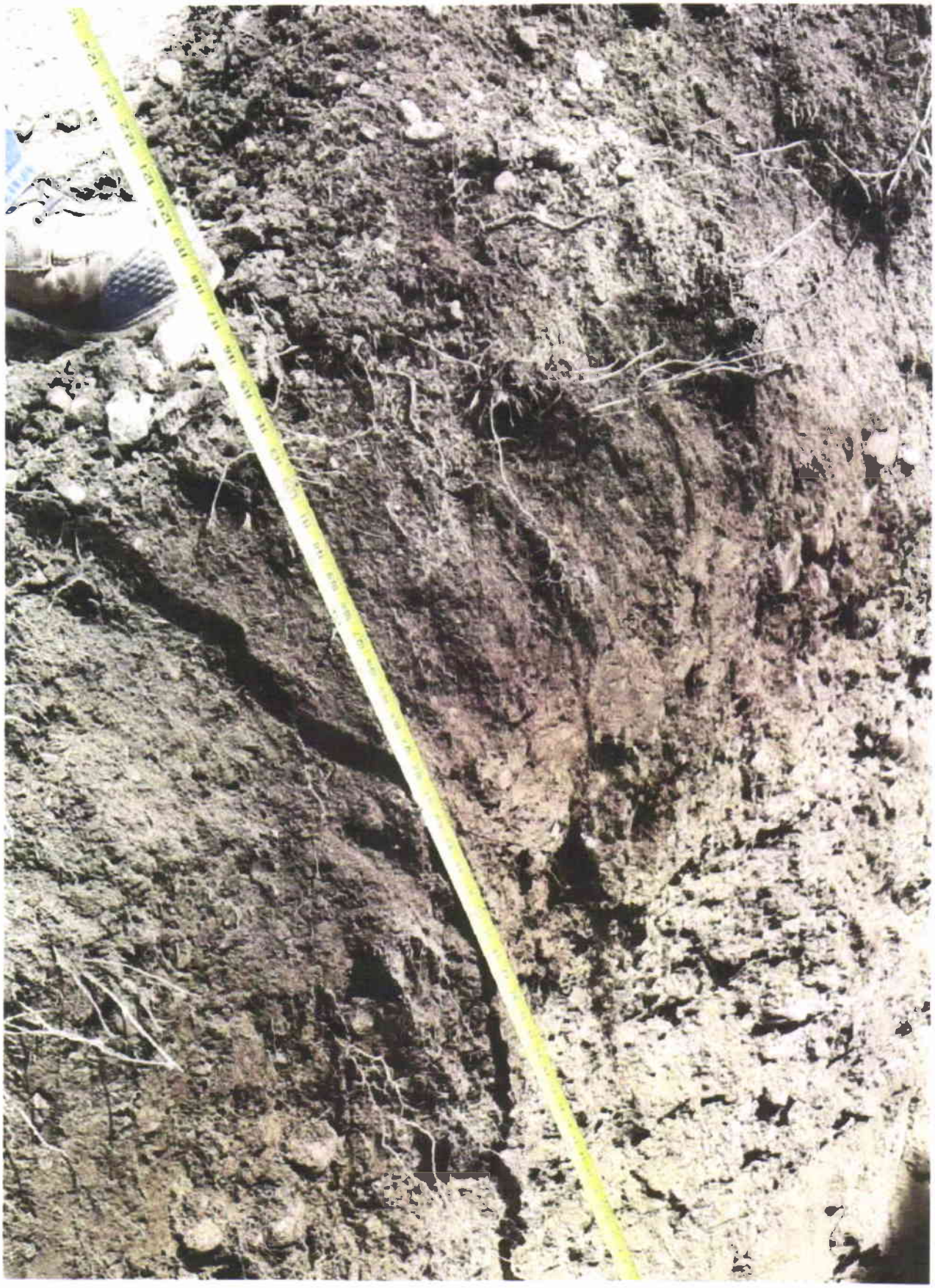
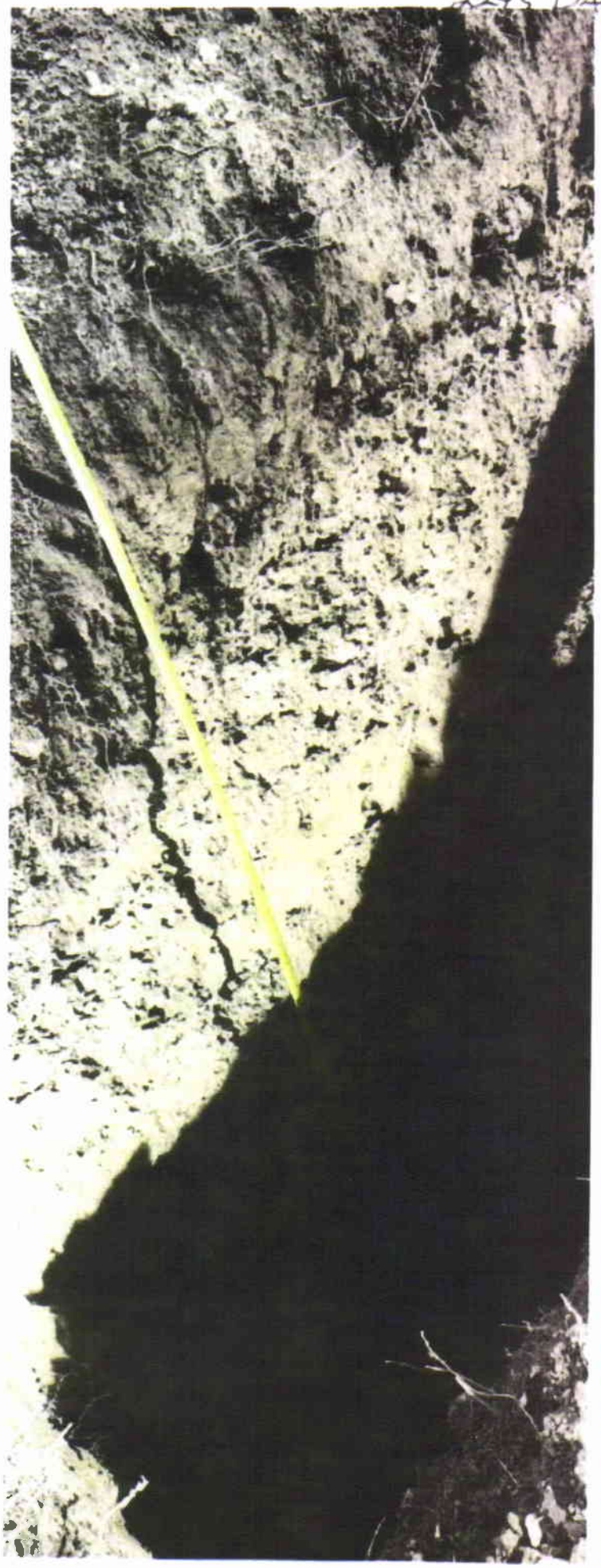
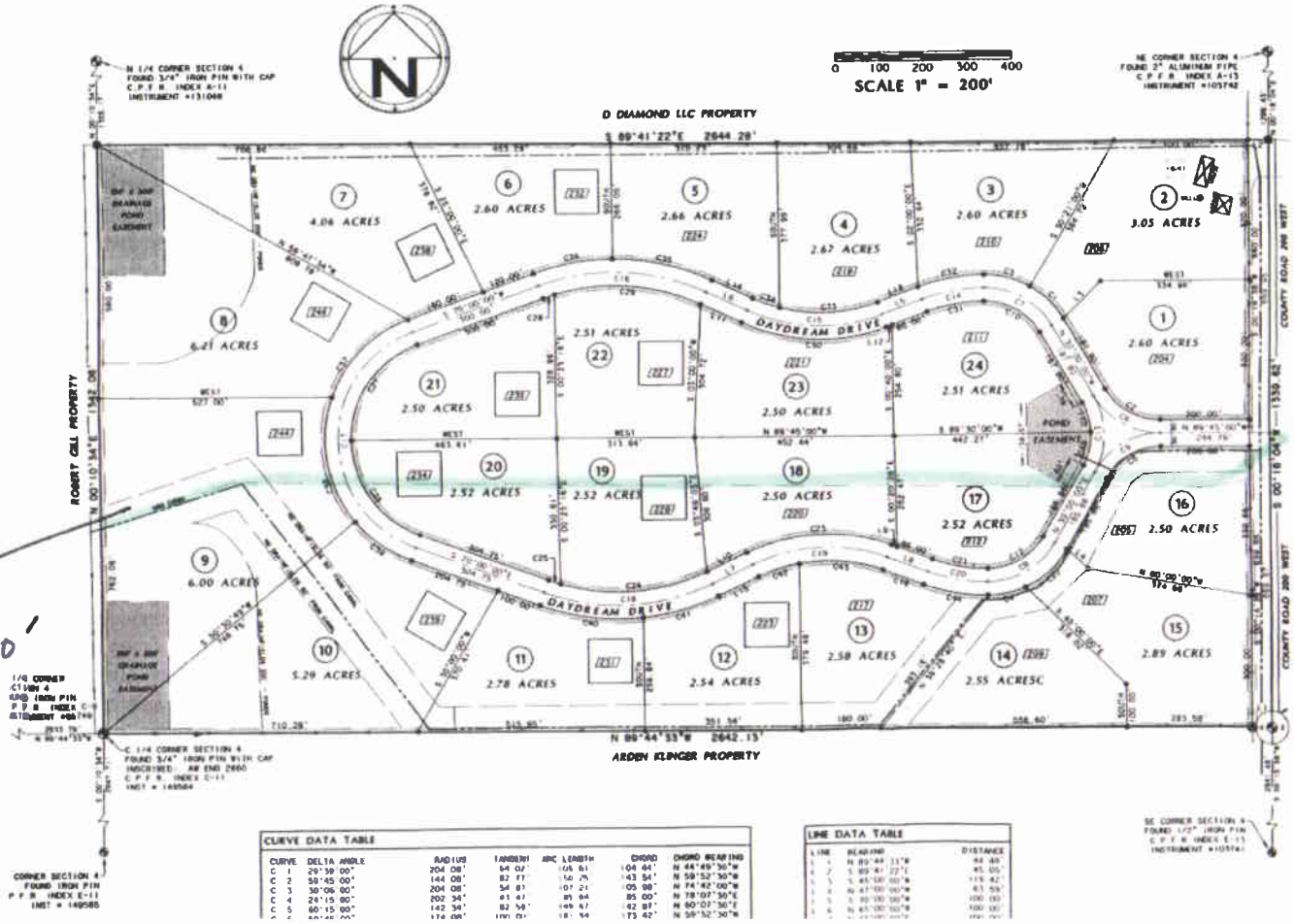


2243 Day dream



Test Hole April 2024



Canal
Separation
from D.F = 50'

CURVE DATA TABLE

CURVE	DELTA ANGLE	RADIUS	TANGENT	ARC LENGTH	CHORD	CHORD BEARING
C 1	29°59'00"	204.08'	64.02'	106.81'	104.64'	N 44°49'30"W
C 2	58°45.00"	144.08'	82.77'	147.76'	143.54'	N 59°52'30"W
C 3	30°06.00"	204.08'	54.87'	107.21'	105.98'	N 74°42'00"W
C 4	24°15.00"	202.34'	61.47'	85.64'	85.00'	N 78°07'30"E
C 5	60°15.00"	142.34'	82.59'	149.67'	142.87'	N 60°02'30"E
C 6	60°15.00"	174.08'	101.01'	183.04'	173.42'	N 59°52'30"W

LINE DATA TABLE

LINE	BEARING	DISTANCE
L 1	N 89°44'33"W	44.48'
L 2	S 89°41'22"E	45.05'
L 3	S 65°00'00"W	115.42'
L 4	N 65°00'00"W	61.59'
L 5	S 89°00'00"W	100.00'
L 6	N 65°00'00"W	100.00'

Soil Test Holes

Dug on July 21, 2001
Backhoe AW Engineering
Engineering - Arnold Woolstenhulme AW Engineering
Samples tested A W Engineering July 23, 2001

Test Hole # 1	Location SE Corner at Toe of Ridge		0-15 ft Black Topsoil
	Depth of Hole	9feet	1.0 - 9 ft - Dark Brown Loam
	Depth to Water Table	+ 9 feet	No Gravel
	Pipe left in hole	Perc Rate at 36" = 1 in 10 min	
Test Hole # 2	Location Middle project to Ridge		0-0.5 ft Black Topsoil
	Depth of Hole	9 feet	0.5 - 1.5 - Loam
	Depth to Water Table	+ 9 feet	1.5- 9 ft Loamy Gravel
Test Hole # 3	Location Center of project on Ridge		0-1.5 ft Black Topsoil
	Depth of Hole	9 feet	1.5 - 3 ft Dark Loam
	Depth to Water Table	+ 9 feet	3 - 9 ft Light Loam
			No Gravel
Test Hole # 4	Location North Toe of Rigdge in Center		0-2.0 ft Black Topsoil
	Depth of Hole	9 feet	2 - 5 ft Dark Loam soil
	Depth to Water Table	+ 9 feet	5- 9 ft Loam

(Purshia tridentata--NI) and sagebrush (Artemesia tridentata--NI), all species common to uplands.

IV. SOILS

According to the Soil Survey Teton Area, ID-WY, the major portion of the site is underlain with Driggs gravelly loam (DrA). There are also small areas of Driggs silt loam (DsA), Foxcreek gravelly loam (Fr), and Foxcreek loam (Fs) around the perimeter of the site, primarily at the lower western end. A long finger of Feltonia loam (FnB) penetrates the midsection of the site (see Figure 2--Soils).

Of the four named soil series underlying the site, just the two Foxcreek variants are identified as being hydric on the Teton County hydric soils list. This classification is made, however, only when the Foxcreek soils are found in the floodplain. Since the site is four miles from the Teton River or sufficiently distant from the river to be out of the floodplain, the Foxcreek soils would not be considered typically hydric for the purposes of this delineation; however, the Foxcreek component was noted as being hydric on the data sheets. The Driggs and Feltonia soils are associated with dryer locations in the Teton Valley bottom and would not be considered hydric soils.

Site observations revealed soils with uniform characteristics. At most boring locations the soil matrix was a gray-brown color (10 YR 4/2), and at the lower end of the site, mottles were evident in the upper soil profile. While some of the mapped soil series are not considered skeletal, difficult to penetrate gravelly soils were found at all boring locations.

The Corps delineation manual states that soils having a chroma of 2 with distinct mottles are considered hydric, but in Teton County, Idaho, the presence of hydric soils is not a uniformly reliable indicator of regulated wetlands. For a hundred years or more the farmers and ranchers of the Teton Valley have been intensively irrigating upland pastures and fields. This massive transfer of water has caused the evolution of artificial irrigated wetlands on lands that should be uplands. Soils that continuously receive copious amounts of water from irrigation over a period of years evince the same physical properties as naturally occurring hydric soils. The presence of natural hydrology in the soil profile is the ultimate determinant of whether soils have hydric properties due to natural factors or due solely to irrigation practices. This is discussed in the next section of the report.

V. HYDROLOGY

In the Teton Valley, site hydrology is derived from basic three sources. Those are:

1. Water from surface hydrologic features such as creeks, streams, and ponds,
2. Soil saturation as a result of capillarity from the water table,
3. Water delivered from irrigation diversions, irrigation wells, handlines, wheellines, and other irrigation appurtenances.

There were no natural surface hydrologic features on the site itself or in the immediate vicinity of the site. There was also no evidence of soil saturation arising from the water table into the top 12" of the soil profile. Some residual soil moisture from irrigation was still evident on June 8, 2001 at Boring 102, but the site was obviously drying out quickly after having the irrigation shut down. In early June, which is typically the peak of the hydrologic cycle in Teton County, some evidence of soil saturation should have been found in the soil profile if the site contained natural wetlands, but no saturation was observed. Boring 101 was bone dry. Boring 102 was somewhat moist, but it was clearly not saturated. By August 20 and 21, 2001, all eleven bore holes were powder dry to a depth of 30 to 32 inches.

The only hydrologic features observed on the site were a series of irrigation canals that transversed the length of the site from east to west. While the irrigation was turned off early this year (2001) due to drought conditions, there was evidence that the site has been highly saturated from irrigation in the past. There were depressions containing matted leaves and water-borne debris at the termini of the canals. Portions of the lower, western end of the site were obviously ponded at times. Steve Johnson, the rancher who has leased the property in recent years, confirmed that prior to this drought season, he had heavily irrigated the site. Mr. Johnson also stated that without irrigation, the 80 acre parcel could not support the growth of alfalfa, only sagebrush and weeds.

VI. CONCLUSION

Wetlands delineators who have worked for an extensive period in the Teton Valley cannot escape the impression that the current landscape in the valley is a result of one of the greatest and most expansive experiments in wetlands creation. For over a hundred years farmers and ranchers have been moving water from its natural place in the landscape to uplands for the purpose of irrigating their fields and pastures. This has resulted in the creation of irrigation-sustained wetlands on naturally dry upland sites. Such artificial wetlands often appear to be natural wetlands. They contain hydrophytic plant communities, and over the past century, the soils have developed hydric indicators as a result of prolonged flooding from irrigation. The critical difference between artificially irrigated wetlands and natural wetlands, which are

regulated by the Corps, is that the water to the former can be turned off at a headgate or some other point of diversion, whereby the site would revert to an upland.

Experienced delineators working on Teton County sites tell their clients that irrigation to these sites must be turned off so that reasonable and realistic determinations of natural site conditions can be done. This year, due to a pronounced drought, it has not been necessary to take that step. Agricultural irrigation has been shut off throughout Teton County, and consequently, natural conditions in the valley have been revealed. There are still extensive areas in the valley bottom that are highly saturated from the water table despite the drought. These are natural wetlands. Other sites, such as the Gardner property, have reverted to their natural state: dry uplands.

Once irrigation on the Gardner site was shut down, soils on the property quickly dried out. Within a week of losing irrigation water, there was little evidence of soil moisture on the site and no evidence of soil saturation. Over the summer conditions became progressively drier. It is clear that the sole source of hydrology sustaining the site's existing hydrophytic plant community is agricultural irrigation. If the drought conditions persist, an upland plant community, such as that described in the soil survey, would occupy the site. Sedges and rushes would die out to be replaced with upland plant species such as bluebunch wheatgrass and sagebrush.

Since wetlands on the Gardner site are solely supported by irrigation and not derived from natural sources, it is requested that the Corps of Engineers issue a determination that this property is not subject to federal regulation under Section 404 of the Clean Water Act.

Project Day Dream Ranch (formerly Moragard Estates) **11/ 29/ 01**

Judy Gardner

Tested by Arnold Woolstenhulme

Backhoe Matkins - Brandon Lerwell 11:00- 3:00 pm 4 Hrs

Test Hole # 1 Lot 2 NE corner

0-18" Loam Topsoil
2' - 9' Gravel Loam
- No evidence of sub water -

Test Hole # 2 Lot 14 n c/l corner

0-20" Loam Topsoil
2' -4' Gravel loam
4'-4.5' Sand lens in Gravel
4.5' - 9 Gravelly Sand Loam
Very few fines in soil Sample taken
- No evidence of sub water-

Test Hole # 3 Lot 12 n-center

0-18" Loam Topsoil
2' - 9' Gravelly Sandy Loam
- No evidence of sub water -

Test Hole # 4 Lot 6 se corner

16" Loam Topsoil
2' -9' Gravel Sandy loam
-No evidence of sub water

Daydream Ranch Subdivision

Water Test Holes Test holes monitored throung summer 2002

Test Hole	6/12/02	6/19/02	6/2702	7/2/02	7/8/02	7/23/02	8/15/02
1	Dry	Dry	Dry	126"	119"	Dry	Dry
2	Dry	Dry	138"	103"	100"	124"	136"
3	Dry	Dry	115"	86"	76"	96"	108"
4	Dry	Dry	97"	71"	64"	85"	98"
5	Dry	Dry	79"	53"	45"	66"	76"
6	Dry	Dry	92"	70"	59"	80"	89"
7	Dry	Dry	112"	87"	71"	74"	81"
8	Dry	Dry	140"	114"	95"	93"	95"
9	Dry	Dry	Dry	129"	110"	108"	104"
10	Dry	Dry	Dry	Dry	127"	122"	110"
11	Dry	Dry	Dry	Dry	Dry	Dry	Dry
12	106"	103"	65"	49"	47"	69"	79"
NW Pond	Dry	108"	51"	38"	30"	40"	57"
SW Pond	Dry	Dry	84"	59"	55"	60"	88"
Location 1*	Dry	Flooded	Flooded	Dry	Flooded	Dry	Dry
Location 2**	Dry	Dry	Flooded	Flooded	Dry	Dry	Dry

Notes:

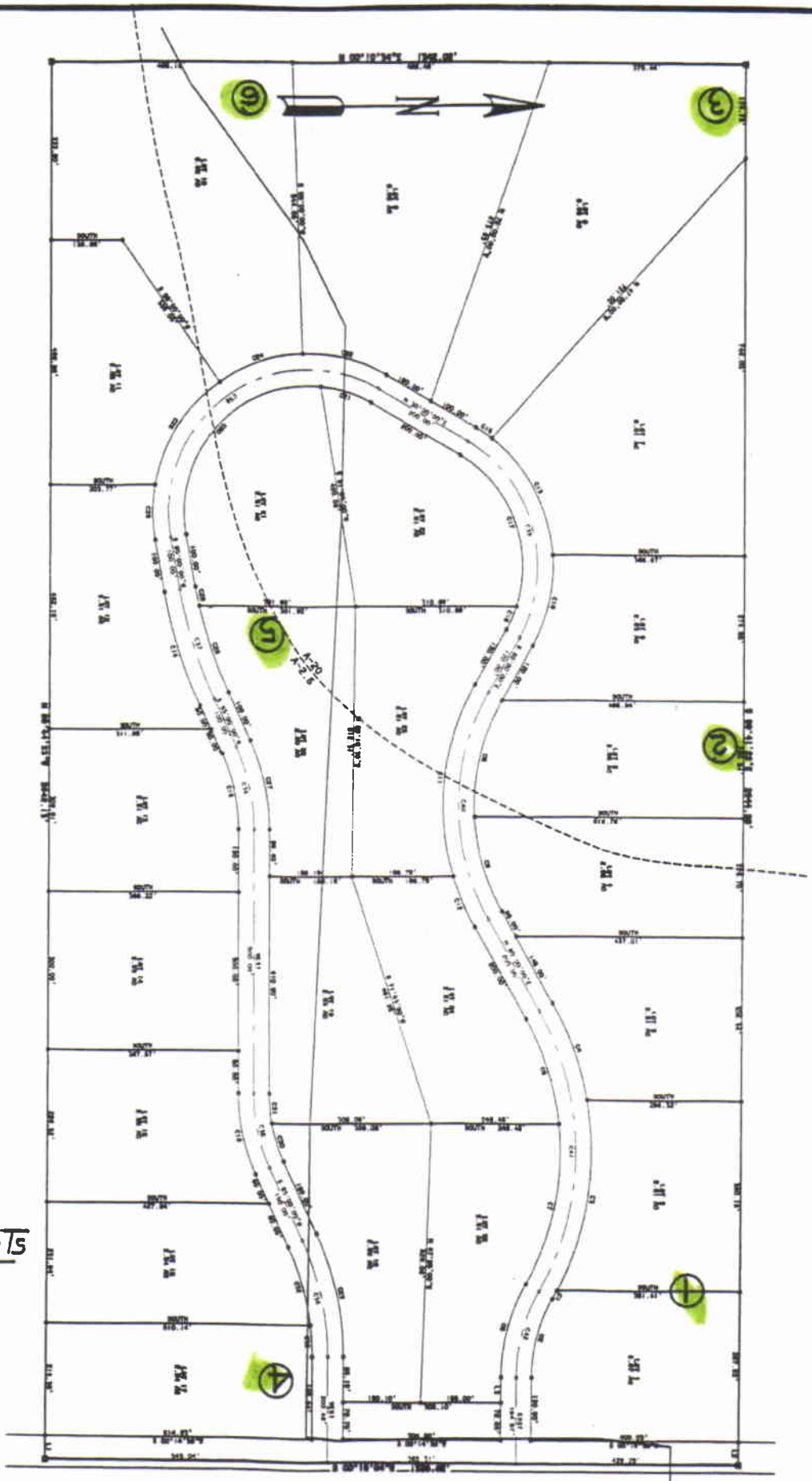
Water measurements are from ground level to the water level.

"Dry" means that the water level was beneath the bottom of the test hole.

**Location 1 flooding was caused by water running from ditch along the other side of the west fence.*

***Location 2 flooding was not caused by ground water running over the ground from ditch. However, each time Location 2 was flooded, the larger ditch running north/south through the property was full of water.*

Highest elevation of water Below grade -



(5) Soil Test Pits

A-7