



State of New Mexico  
**ENVIRONMENT DEPARTMENT**  
**DOE OVERSIGHT BUREAU**  
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September 13, 2000

Joe Vozella, Manager/AIP Point of Contact  
 Department of Energy  
 Los Alamos Area Office  
 528 35<sup>th</sup> Street, MS A316  
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RE: **GPS Coordinates and Field Parameters for Springs in White Rock Canyon**

The DOE Oversight Bureau is submitting new global positioning system (GPS) coordinates and field parameter information for springs in White Rock Canyon. Our purpose for gathering this data (Table 1) was that it would be a timely update for the existing locations in addition to being useful for all agencies performing environmental surveillance monitoring at LANL. Our staff collected these data on 04/06/00 through 04/19/00. The GPS coordinates for each spring were measured at existing ESH-18 yellow monuments (or at the spring source for unmarked locations) using a Trimble GeoExplorer 3. The data set was then differentially corrected by Kathryn Bennett of ESH-20, and we sincerely appreciate her efforts.

We would also like to thank LANL's ES&H Division and San Ildefonso Pueblo's Environmental Office for their time and for the use of their equipment.

Please contact Michael Dale (672-0449, email [mdale@lanl.gov](mailto:mdale@lanl.gov)) of my staff if you have any questions regarding this matter.

Sincerely,

*Stephen Yanicak*  
 Steve Yanicak, Program Manager  
 NMED Point of Contact

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DOE OVERSIGHT BUREAU

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Enclosure

cc: **John Parker**, NMED, Chief, DOE OB  
 Mat Johansen, DOE, LAAO, MS A316  
 Steve Rae, LANL, Group Leader, ESH-18, MS K497  
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 Harry Plannerer, LANL, Leader, EES-5, GIS Team, MS D452  
 Neil Weber, San Ildefonso Pueblo, Director, Department of Environmental and Cultural Preservation  
 File, White Rock DOE OB Office

c:/.../GPSltrWRC\_springs\_9\_11\_00.doc

LANL Environmental Monitoring Office (White Rock Canyon Springs)

WALD & FE



**Table 1. White Rock Canyon springs coordinates, elevations, field data and observations obtained during April, 2000.**

Station	Collection Date	GPS Differentially Corrected Easting	GPS Differentially Corrected Northing	Elevation	Temp. °C	pH (S.U.)	Specific Conductance (uS/cm)	Estimated Flow at Source (gpm)	Estimated Total Flow (gpm)	Estimated Flow Entering Rio Grande (gpm)	Comments
Otowi Spring	See Purtymun <sup>2</sup> (1995) for the most current data.										
La Mesita Spring	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 1	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 2	See Purtymun <sup>2</sup> (1995) for the most current data.										
Ancha Spring	See Purtymun <sup>2</sup> (1995) for the most current data.										
Canada Spring	See Purtymun <sup>2</sup> (1995) for the most current data.										
Sandia Spring	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 2A	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 3	04/06/2000	1661217	1753698	5550	19.3	6.99	189	2	15	15	LANL and OB markers present at source.
Spring 3A	04/06/2000	1661176	1753529	5530	19.9	6.96	172	35	35	30	LANL marker present at source; OB marker missing.
Spring 3AA	04/06/2000	1660952	1751349	5460	18.7	7.38	155	1	1	0	LANL and OB markers present at source.
Spring 3 B	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 4	04/06/2000	1657402	1748288	5420	15.7	6.98	195	45	45	45	LANL and OB markers present at source.
Spring 4A	04/07/2000	1656058	1748079	5640	20.3	7.43	181	25	200	150	LANL and OB markers not present at source.
Spring 4AA	04/07/2000	1656115	17484450	5630	18.8	7.11	210	5	7	3	LANL and OB markers not present at source. Flow from spring commingles with flow from Spring 4A.
Spring 4B	04/07/2000	1656971	1748255	5510	16.0	6.87	234	2	7	4	OB marker present at source; LANL marker missing.
Spring 4C	04/07/2000	1657250	1748356	5460	16.8	7.05	192	15	20	20	OB marker present at source; LANL marker missing.
Spring 5	04/07/2000	1654944	1743179	5560	20.9	7.33	165	4	7	0	LANL and OB markers present at source.
Spring 5A	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 5AA	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 5B	See Purtymun <sup>2</sup> (1995) for the most current data.										
Ancho Spring	04/10/2000	1646936	1737411	5700	18.4	6.93	118	1	35	15	LANL marker present at source; OB marker missing.
Spring 6	04/10/2000	1648910	1735555	5385	19.7	7.13	126	7	12	12	LANL marker present at source but mis-marked as Spring 6A; OB marker missing.
Spring 6A	04/10/2000	1647047	1734368	5380	20.9	6.57	139	3	3	3	LANL and OB markers not present at source. Source was flagged with tape.
Spring 7	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 8	See Purtymun <sup>2</sup> (1995) for the most current data.										
Spring 8A(?)	04/10/2000	1643776	1734139	5560	16.1	6.80	116	<1	<1	<1	LANL marker present but no Bar Code; no OB marker. Flow commingles with flow from Spring 8B?
Spring 8B	Approximately 70 ft downstream from Spring 8A(?), discharging from north slope			5540	20.3	6.67	105	2	4	2	LANL and OB markers not present at source. Source was flagged with tape.
Spring 9	04/11/2000	1643158	1733604	5500	17.8	7.12	113	3	16	14	LANL and OB markers not present at source. Source was flagged with tape.
Spring 9A	04/11/2000	1642543	1733606	5560	19.8	6.69	114	2	5	0	LANL and OB markers present at source.
DOE Spring	04/11/2000	1642347	1733726	5580	16.1	7.42	113	1	5	0	OB marker present at source; LANL marker missing.
Spring 9B	04/19/2000	1642129	1732281	5800	12.2	7.51	113	2	2	0	LANL marker present at source; OB marker missing. Field data collected 30 ft downstream of source.
Spring 9C	04/19/2000	Could not obtain GPS reading.		5420	11.7	6.95	117	3	5	3	LANL and OB markers not present at source. Source was flagged with tape.
Spring 9D	04/19/2000	Could not locate spring; river stage may have been too high.		5390							LANL and OB markers not present at source.
Spring 10	04/11/2000	1638008	1728240	5360	Low-flow conditions, unable to obtain field data.					0	LANL marker present at source; OB marker missing.

<sup>1</sup> - Elevation estimate based on USGS and LANL topographic maps, LANL orthophotos and aerial photos.

<sup>2</sup> - Purtymun, W.D., 1995, Geologic and hydrologic records of observation wells, test holes, test wells, supply wells, springs, and surface water stations in the Los Alamos area: LANL, Report LA-12883-MS, 339 p.