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Geophysical Surveys for Locating Buried Utilities, Lake Pontchartrain Levees, New Orleans

José L. Llopis, Janet E. Simms, and Grant A. Riddick

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Geophysical Surveys for Locating Buried Utilities, Lake Pontchartrain Levees, New Orleans, LA

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Abstract

This report presents the results of a geophysical study performed to determine the location of buried utilities beneath or in the vicinity of the levees on the south shore of Lake Pontchartrain approximately 8 km (5 miles) north of downtown New Orleans, LA. There was concern that utilities located beneath or buried near the toe of the levees could act as a water conduit during flooding events. If a water-filled utility fails, it is possible that it may cause the levee to fail either by piping material from within the levee or cause slope stability problems. It is also possible that buried utilities can act as potential seepage paths through the levee during high water events. In this case, the buried pipe would not have to “fail” to cause a problem. The utilities needed to be accurately located so that they could be rerouted, removed, or abandoned and grouted-in. Electromagnetic, total field magnetic, and ground penetrating radar systems were assessed to determine the best method for detecting the buried utilities in this area. The Geonics EM31 electromagnetic induction instrument was considered the most effective for detecting the utilities. EM31 anomalies, presumed to be the locations of buried utilities, were mapped and their coordinates tabulated for further interrogation.

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Preface

This report describes a study commissioned by the US Army Engineer District, New Orleans, under Military Interdepartmental Purchase Request W42HEM73138891 and conducted by the US Army Engineer Research and Development Center (ERDC) to map buried utilities beneath and near the levees on the south shore of Lake Pontchartrain, New Orleans, LA, using surface-based geophysical methods. The work was performed during the periods 29 November through 7 December 2007, 9 through 18 January 2008, 22 January through 1 February 2008, 19 through 24 February 2008, and 15 through 16 April 2008. The geophysical surveys included electromagnetic induction, ground penetrating radar, total field magnetics, and radio signal detection.

The Senior Project Manager, Hurricane Protection Office (HPO), New Orleans District, was Kevin G. Wagner. The work described herein was conducted by José L. Llopis and Dr. Janet E. Simms, Geotechnical Engineering and Geosciences Branch (GEGB), Geosciences and Structures Division (GSD), Geotechnical and Structures Laboratory (GSL), ERDC, and Grant A. Riddick, US Army Engineer District, Saint Paul. This publication was prepared by Llopis under the general supervision of Chad A. Gartrell, Chief, GEGB; Bartley P. Durst, Chief, GSD; Dr. William P. Grogan, Deputy Director, GSL; and Dr. David W. Pittman, Director, GSL. The report was published under the Flood and Coastal Storm Damage Reduction Program.

COL Jeffrey R. Eckstein was Commander of ERDC. Dr. Jeffery P. Holland was Director.

Executive Summary

Substantial portions of the hurricane protection system restoration effort in New Orleans, LA, are being undertaken by the upper five districts (U5) in the US Army Corps of Engineers Mississippi Valley Division. This work was requested initially by the U5 project manager William L. Csajko, US Army Engineer District, Saint Paul, for the levee reach designated as Lake Pontchartrain and Vicinity (LPV) 103 and funded through the Hurricane Protection Office (HPO), Senior Project Manager, Kevin G. Wagner, US Army Engineer District, New Orleans.

Ultimately, the work expanded to include additional levee reaches designated as LPV101, LPV102, and LPV104 and a partial portion of LPV106. These areas are all located along the south shore of Lake Pontchartrain in neighborhoods known locally as Lakeview (LPV101-104) and New Orleans East (LPV106).

Subsurface geophysical methods can be broadly characterized as an attempt to “see” beneath the ground surface in a non-destructive and non-intrusive manner (without digging up the ground). In any area, the ground soils have naturally occurring physical properties associated with them. The measurement of these naturally occurring properties may be considered the background readings or “normal” readings for a given area. In reality, what the geophysical instruments detect are significant changes (anomalies) in one of these naturally occurring physical parameters. One of the primary tasks of the geophysical professional is to select the most effective geophysical method for the site given its native conditions. It is important to emphasize that while various geophysical methods are available, not all are applicable in all ground conditions. The limitations of the various methods employed during this project are discussed in detail within the main body of this report. The most effective and efficient method for the conditions encountered along the Pontchartrain levee alignments, as determined by the authors in the field, was the electromagnetic (EM) survey method.

The general process employed for field data collection was to traverse the ground adjacent to the levee as well as the levee prism itself with a Geonics EM31 terrain conductivity meter. The EM method “sees” anomalies most effectively when in a perpendicular orientation to the anomaly. By crossing

the area in both a “north-south” and “east-west” orientation, it was hoped that anomalies both perpendicular and parallel to the levees would be detected. Detected anomalies were field marked with pin flags, and their locations later recorded using a global positioning system (GPS). Anomalous locations were mapped and linear trending anomalies were interpreted to be potential buried utility lines. The final determination of the actual nature and true depth of these linearly trending anomalies is only possible through excavation and visible inspection. The use of geophysical techniques for utility detection enables the extent of subsequent excavating to be minimized by more accurately targeting a potential utility location.

1 Introduction

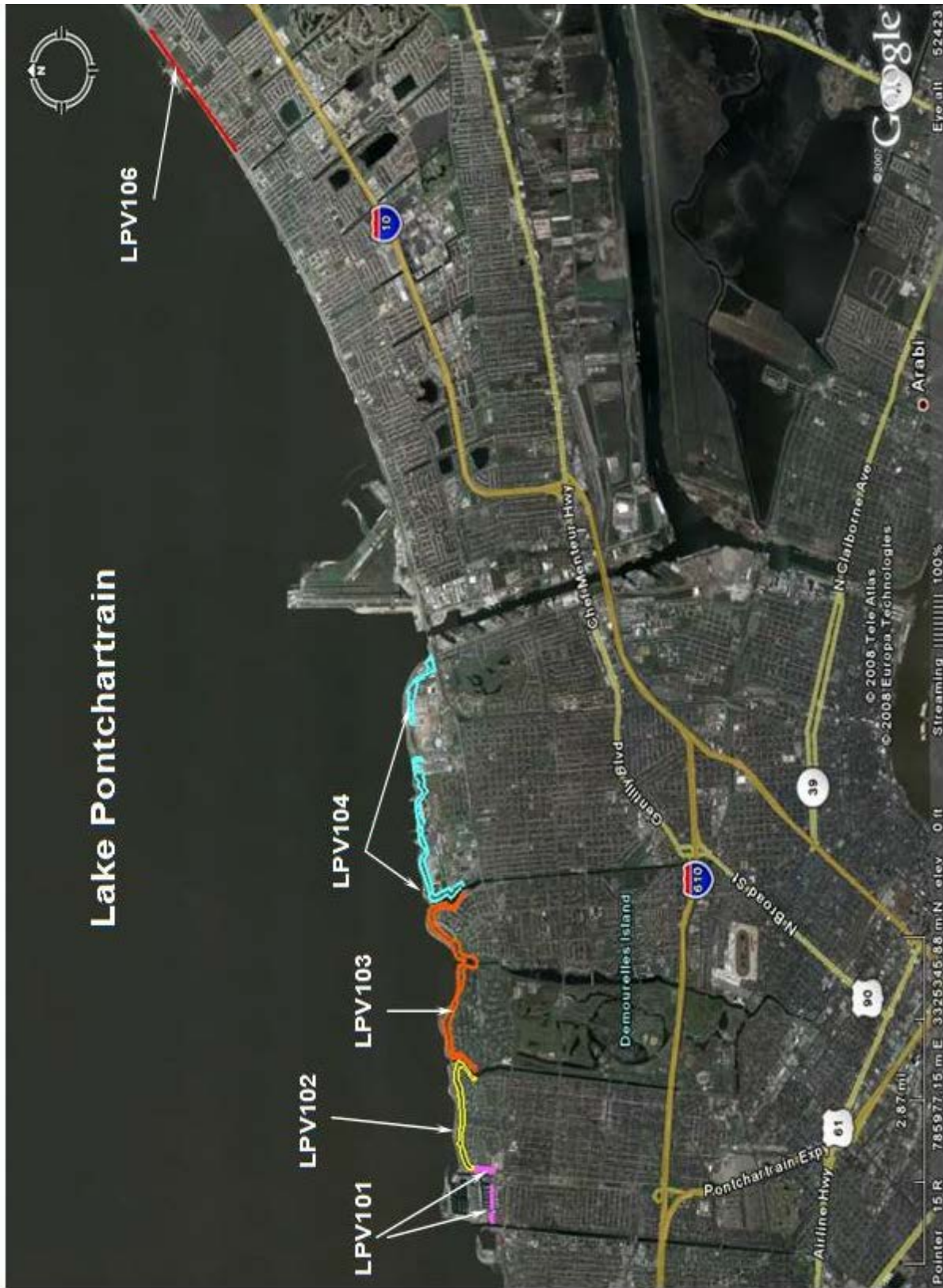
Background

Levees in urban areas often times are located over or near buried utilities. During flooding events, it is conceivable that utilities encased in conduits crossing beneath levees or buried near levee toes may become in-filled with water from flood waters on the flood side of the levee. If one of these water-filled conduits were to fail beneath or near the levee toe during a flood event, a piping-induced catastrophic failure of the levee is possible. It is also possible that buried utilities can serve as potential seepage paths through the levee during high-water events. In this case, the buried pipe would not have to “fail” to cause a problem. Currently, the US Army Engineer District, New Orleans (MVN), Hurricane Protection Office (HPO), is enlarging levees in an urban area located on the south shore of Lake Pontchartrain approximately 8 km (5 miles) north of downtown New Orleans, LA. Prior to levee enlarging, the HPO located buried utilities near the Lake Pontchartrain levees based on utility maps provided by local utility companies. However, given the length of time the levees have been in place and the urban expansion into this area, the accuracy and completeness of these utility maps are in doubt. These utilities need to be accurately located so that they can be rerouted or abandoned. If abandoned, they must be removed or grouted-in such that they will not let water pass through.

Objective

At the request of HPO, personnel of the US Army Engineer Research and Development Center (ERDC) conducted a geophysical investigation along a stretch of levee located on the south shore of Lake Pontchartrain (Figure 1). The main study area is approximately 9 km (5.5 miles) in length and is divided into four survey areas; LPV101, LPV102, LPV103, and LPV104 as shown in Figure 1. The primary objective of the investigation was to map the location of anomalies presumably associated with buried utilities beneath and along the toes of the Lake Pontchartrain levees. A secondary objective was to locate the source of localized seepage at six locations along approximately 2 km (1.3 miles) of the protected side levee toe on Haynes Boulevard. This area is located east of the main study area and designated LPV106 (Figure 1). The investigation was performed during the time periods 29 November through 7 December 2007, 9 through 18 January 2008, 22 January through 1 February 2008, 19 through 24 February 2008, and 15 through 16 April 2008.

Figure 1. Site map.



2 Geophysical Test Principals and Field Procedures

This section provides a description of the surface geophysical methods and field procedures used for this study. Electromagnetic (EM) induction, magnetic, and ground penetrating radar (GPR) geophysical methods were evaluated to determine which method was best suited for mapping buried utilities. A pipe and cable locator was also used.

Electromagnetic surveys

EM induction is used to measure the apparent electrical conductivity (inverse of electrical resistivity) of subsurface materials and also for detecting buried metallic items. Electrical conductivity is a measure of the degree to which the soil conducts an electrical current and can be used to infer geologic materials and the location of the water table.

Geonics, Ltd. electromagnetic instruments, models EM31 and EM61 MkII, were used for this study. The EM31 operates in the frequency domain, whereas the EM61 operates in the time domain.

EM31

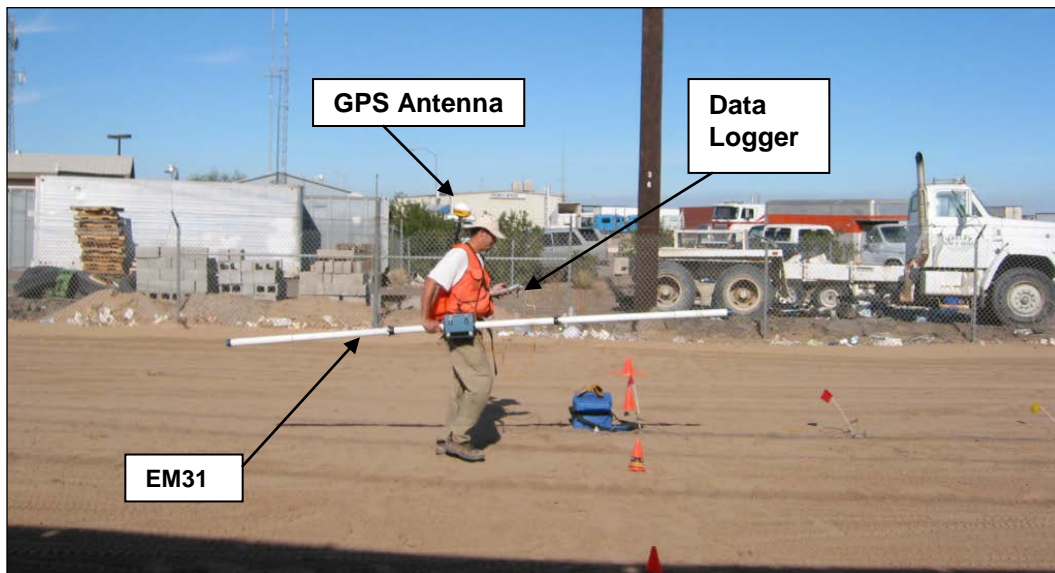
The EM31 consists of a set of co-planar transmitter (Tx) and receiver (Rx) coils separated approximately 3.67 m (12 ft) apart. An alternating current is passed through the Tx coil, thus generating a primary time varying magnetic field. This primary field induces eddy currents in subsurface conductive materials. The induced eddy currents are the source of a secondary magnetic field, which is detected by the Rx coil along with the primary field.

Two components of the induced magnetic field are measured by the EM system. The first is the quadrature phase, sometimes referred to as the out-of-phase or imaginary component. Apparent ground terrain conductivity is determined from the quadrature component. Disturbances in the subsurface caused by compaction, in-filled abandoned channels, soil removal and fill activities, buried objects, or voids may produce conductivity readings different from background values, thus indicating anomalous areas. The units of apparent ground conductivity are measured in milliSiemens per meter (mS/m). The inphase component is sensitive to

metallic objects and therefore is useful when looking for buried metal such as metal pipes and electrical wires. When measuring the inphase component, the true zero level is not known, since the reference level is arbitrarily set by the operator. Therefore, measurements collected in this mode are relative to an arbitrary reference level and have units of parts per thousand (ppt).

Under optimal conditions, the EM31 has an effective depth of investigation of about 6 m (20 ft) (Geonics 1980¹). The EM31 meter reading is a weighted average of the earth's conductivity. A thorough investigation to a depth of about 3.5 m (12 ft) is usually possible, but below this depth the effects of electrically conductive objects become more difficult to distinguish. For this study, the EM31 was carried at hip level, approximately 1 m (3 ft) above the ground surface, with the long axis of the instrument oriented parallel to the survey line (Figure 2).

Figure 2. Geonics Ltd. EM31 conductivity meter being used during a typical survey.



EM61

The EM61 is a high-resolution, high-sensitivity, time-domain metal detector capable of detecting both ferrous and non-ferrous metallic objects. Unlike the EM31, which applies a continuous alternating current to coil and measures the secondary magnetic field while the transmitter is operating, the EM61 generates a pulsed primary magnetic field, which induces eddy

¹ Geonics. 1980. *Electromagnetic terrain conductivity measurements at low induction numbers*. Technical Note TN-6. Mississauga, Ontario, Canada: Geonics Limited..

currents in nearby metallic objects. The decay of these currents is measured by two receiver coils mounted on the coil assembly. To eliminate the effects of conductive soils, which have a shorter decay rate than those of metals, the secondary magnetic field response is not measured until a few microseconds after the transmitter is turned off. The EM61 is capable of detecting a single 55-gal drum at a depth of approximately 3 m (10 ft) beneath the instrument, yet is relatively insensitive to interference from nearby surface metal such as fences, buildings, cars, etc. (Geonics 2005¹).

The EM61 consists of two horizontal and parallel coils, each 1.0 m by 0.5 m (3.3 ft by 1.6 ft) with the lower coil positioned approximately 0.40 m (16 in.) above the ground and the upper coil approximately 0.5 m (20 in.) above it. For this survey, the received signal was measured at three time gates, or channels, using the lower coil, and at the third time gate using both coils, allowing a differential measurement. Wheels are attached to the bottom coil so that the instrument can be towed along a survey line. The measured signal is in units of millivolts (mV).

Magnetic surveys

Magnetic surveys measure changes in the earth's total magnetic field caused by variations in the magnetic mineral content of near-surface rocks and soils or ferrous objects. These variations are generally local in extent. The magnetic response is attributed both to induction by the magnetizing field and to remanent magnetization. Remanent magnetization is permanent magnetization and depends on the thermal and magnetic history of the body; it is independent of the field in which it is measured. Induced magnetization is temporary magnetization that disappears if the material is removed from the inducing field. Generally, the induced magnetization is parallel with and proportional to the inducing field.

Any material or object having a magnetic susceptibility will contribute to the total magnetic field measured by the magnetometer. If an object is present such that its magnetization is great enough to perturb the ambient magnetic field, then it will appear as an anomaly on the magnetic data plot. The size, orientation, depth of burial, magnetic susceptibility, and remanent magnetization of the object determine the magnitude of the anomaly and thus affect the ability of the magnetometer to detect the

¹ Geonics. 2005. *EM61-Mk2 and EM61-Mk2HP 4 channel high sensitivity metal detectors, operating manual*. Mississauga, Ontario, Canada: Geonics Limited.

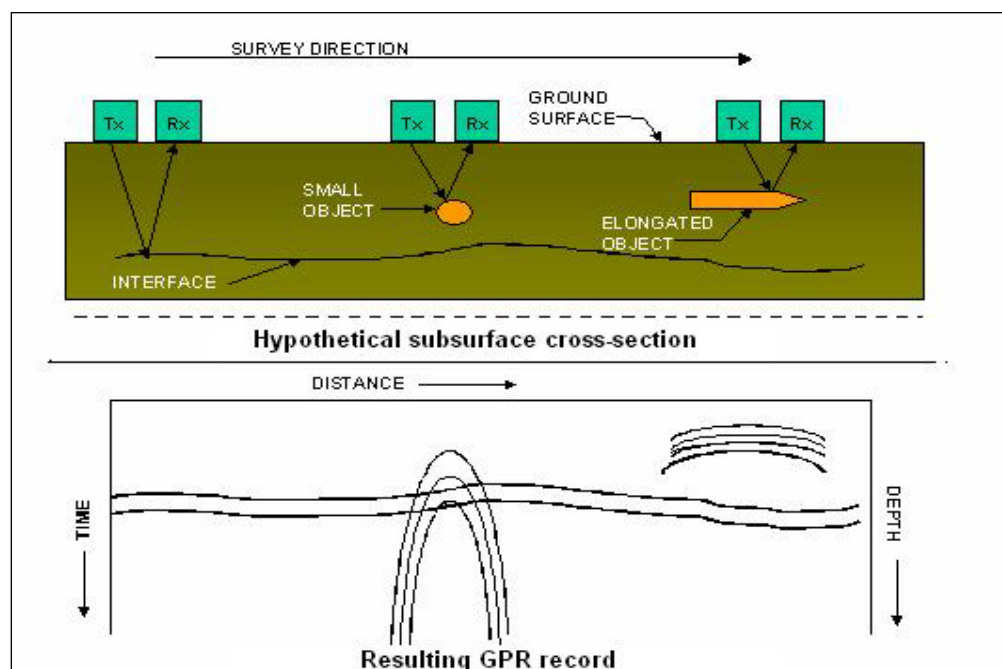
object. For a given susceptibility and remanent magnetization, as the size of the object decreases and/or depth of burial increases, the magnitude of the anomaly decreases; eventually the anomaly will be undetectable.

A Geometrics G-858 magnetometer was used to collect the magnetic data. The G-858 uses a cesium vapor sensor and measures the total magnetic field (in nanoTesla, nT). The total magnetic field measurement is a summation of the ambient earth field and the induced field resulting from ferrous iron-bearing material within the sensing range of the sensor. Ferrous material can include both man-made and natural sources. Data were collected at 0.1-sec intervals along the survey lines.

Ground penetrating radar surveys

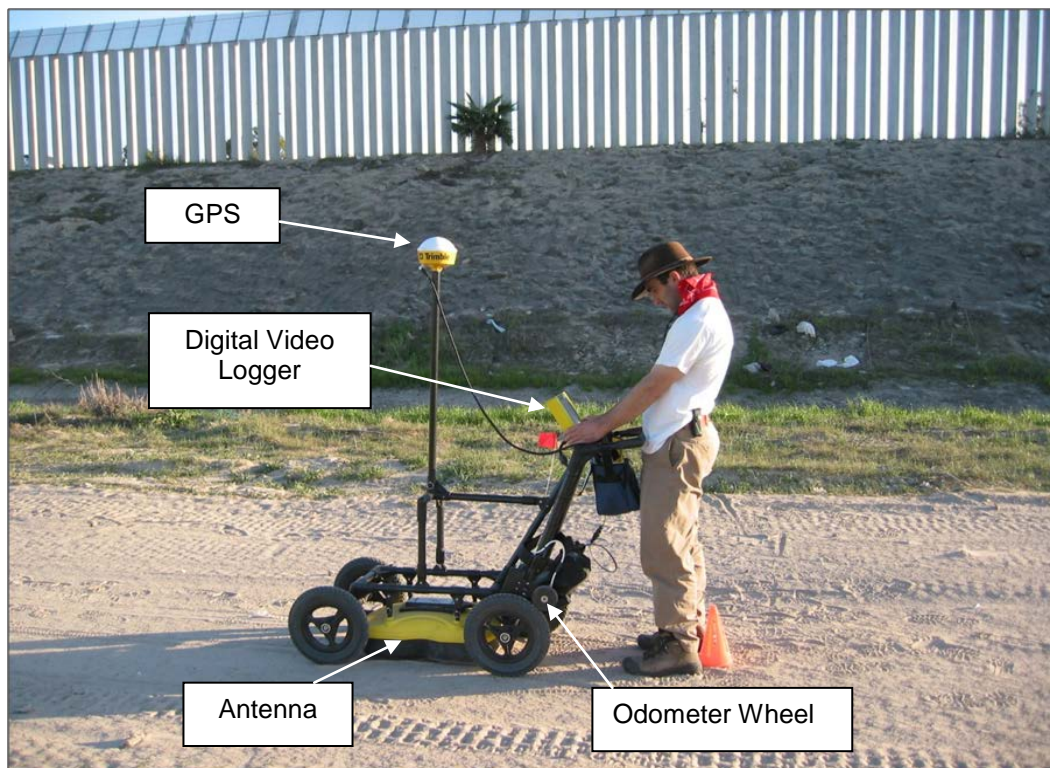
GPR is a ground-based geophysical instrument that transmits high-frequency EM pulses into the subsurface. The GPR system consists of a transmitting (Tx) and receiving (Rx) antenna. When the transmitted EM signal impinges upon the boundaries of materials with contrasting electrical properties, some of the EM signal is reflected back to the surface where it is detected by the receiving antenna. The time the signal takes to travel from the transmitting antenna, reflect off a boundary, and be detected by the receiving antenna are amplified, processed, and recorded to provide a “continuous” profile of the subsurface, as illustrated in Figure 3.

Figure 3. GPR concepts.



The transmitted EM signals respond to changes in materials with sufficiently different electrical properties such as those caused by mineral content, salinity, water content, density, voids, etc. The depth of penetration and amount of definition that can be expected is determined by the electrical properties of the host material being tested as well as the power and frequency of the transmitting antenna. In general, the higher the conductivity of the host material, the less the GPR depth of penetration will be. The primary disadvantage of GPR is its extremely site-specific applicability. It is difficult to predict whether GPR will be successful in accomplishing its goal without prior knowledge of the electrical properties of the host materials. The GPR system used in this investigation was a Sensors and Software, Inc. Noggin Plus. This GPR system uses a 250-MHz antenna. The reflection profiling survey mode was used for these surveys. In this mode, the receiving and transmitting antennas are kept a fixed distance apart as the antenna pair is pulled along a survey line. The antenna separation for the Noggin Plus 250-MHz antenna is a fixed 35 cm (14 in.). The cart-mounted Noggin Plus is a user-friendly and straightforward system to operate. The system consists of an antenna and a digital video logger (DVL) all mounted on a cart (Figure 4). Once the unit is unfolded and powered-up, a GPR survey can begin in less than a minute. The DVL is used to input system parameters and collect, display, store, and transfer data.

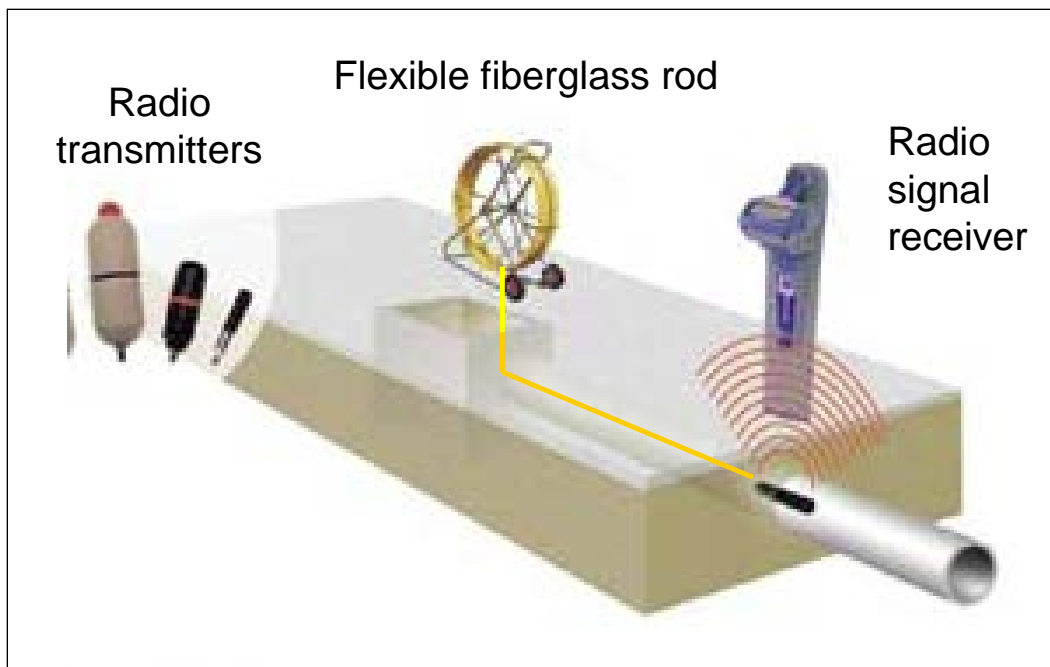
Figure 4. Sensors and Software Noggin Plus Smart Cart system with 250 MHz antenna.



Pipe and cable locator survey

A Radiodetection RD4000 cable and pipe locator system was used in this study to map the location of a sewer line. The system consists of a radio transmitter attached to the end of a flexible 115-m-long (375-ft) fiberglass rod that is fed into an accessible opening and snaked through the sewer. The system is illustrated in Figure 5. As the transmitter travels through the sewer, the emitted radio signal is detected on the ground surface with the receiver. The transmitter is moved in small increments through the sewer, and its corresponding position is detected and marked on the ground surface. The receiver also displays an estimated depth to the transmitter.

Figure 5. Illustration of the Radiodetection RD4000 cable and pipe locator system.



Instrument evaluation and selection

During the initial field trip, the two EM and the magnetic methods were evaluated to determine which method(s) would be the most effective for mapping utilities on and near the levees. The GPR method was not evaluated at this time, because the levee soils and the soils upon which they are built have a relatively high electrical conductivity making GPR ineffective. GPR surveying was limited to the paved marina area at LPV101 during the 22 January through 1 February trip.

The evaluation phase was conducted by laying out several survey lines, each oriented parallel to the levee, along both levee toes and partially up both levee slopes. These survey lines were run to detect buried utilities oriented roughly perpendicular to the levee axis. In addition, lines were laid out in a saw-tooth configuration on both levee toes to detect utilities that ran parallel to or at an oblique angle to the long axis of the levee.

GPR was also evaluated at LPV104 near the intersection of Leon Simon Street, Leroy Johnson Street, and Lakeshore Drive in an attempt to locate a non-metallic storm sewer line. The GPR was not able to detect the sewer line in this area.

Each instrument was run along the same survey lines. A Trimble DSM 232 global positioning system (GPS) with sub-meter accuracy was used to track and record the locations of the instruments during the surveys. The instrument operator monitored and recorded instrument readings during the survey on a hand-held data logger. Pin flags were placed at the locations where the operator noted an anomaly indicative of a buried metallic object. During the EM61 and magnetometer surveys, many flags that were unrelated to buried utilities were planted because of the instrument's sensitivity to small shallow metallic objects. Ideally, after a survey, the pin flags will line up indicating the location of a buried utility. However, because of the numerous anomalies detected by the EM61 and magnetometer and the planting of corresponding flags, it was difficult to delineate linear features indicative of a buried utility. The EM61 and magnetometer surveys were plotted in plan view and again, because of the interference from the small shallow objects, there was difficulty distinguishing linear features associated with buried utilities.

On the other hand, the EM31 survey results showed far fewer detected anomalies than with the EM61 or the magnetometer. The EM31, being insensitive to shallow small metallic objects, makes the task of distinguishing a buried utility from near-surface objects much easier. Therefore, the EM31 was chosen for locating buried utilities for this investigation.

3 Geophysical Test Results

LPV101

LPV101 is the westernmost test area of this study area. It is located primarily along Lake Marina Avenue between the east bank of the 17th Street Canal and the intersection of Lakeshore Drive and Topaz Street. It is an urbanized area that has a great deal of metallic clutter that interfered with the EM31. The survey areas within LPV101 are shown in Figure 6. GPR and EM31 surveys were run in the paved parking lot inside the floodwalls by the marina. The EM31 survey was ineffective within the marina site because of the proximity of the reinforced concrete floodwall and parked vehicles, which interfered with the received EM31 signal. Also, the numerous shallow reflectors of varying depth and size detected by the GPR made it impossible to distinguish the clutter from any likely utilities. Figures 7 through 9 show the interpreted anomalies, as indicated by the crosses, from the EM31 surveys conducted at LPV101_A through LPV101_C, respectively. The coordinates of the flagged anomalies are presented in Table A1. The EM31 conductivity and in-phase maps for LPV101 are presented in Figures B1 through B6.

LPV102

LPV102 is located directly east of LPV101 and extends east along Lakeshore Drive from its intersection with Topaz Street to the west bank of the Orleans Avenue Canal. The site is divided into five sections designated LPV102_A through LPV102_E for presentation purposes (Figure 10). The anomalies for LPV102_A through LPV102_E, based on the results of the EM31 surveys, are presented in Figures 11 through 15, respectively. Survey results for LPV102_A and LPV102_B (Figures 11 and 12, respectively) and LPV102_D (Figure 14) show several linear anomalies crossing perpendicular to the levee. The coordinates of the flagged anomalies for LPV102 are presented in Table A2. The EM31 conductivity and in-phase maps for LPV102 are shown in Figures B7 through B16.

Figure 6. LPV101 survey area.

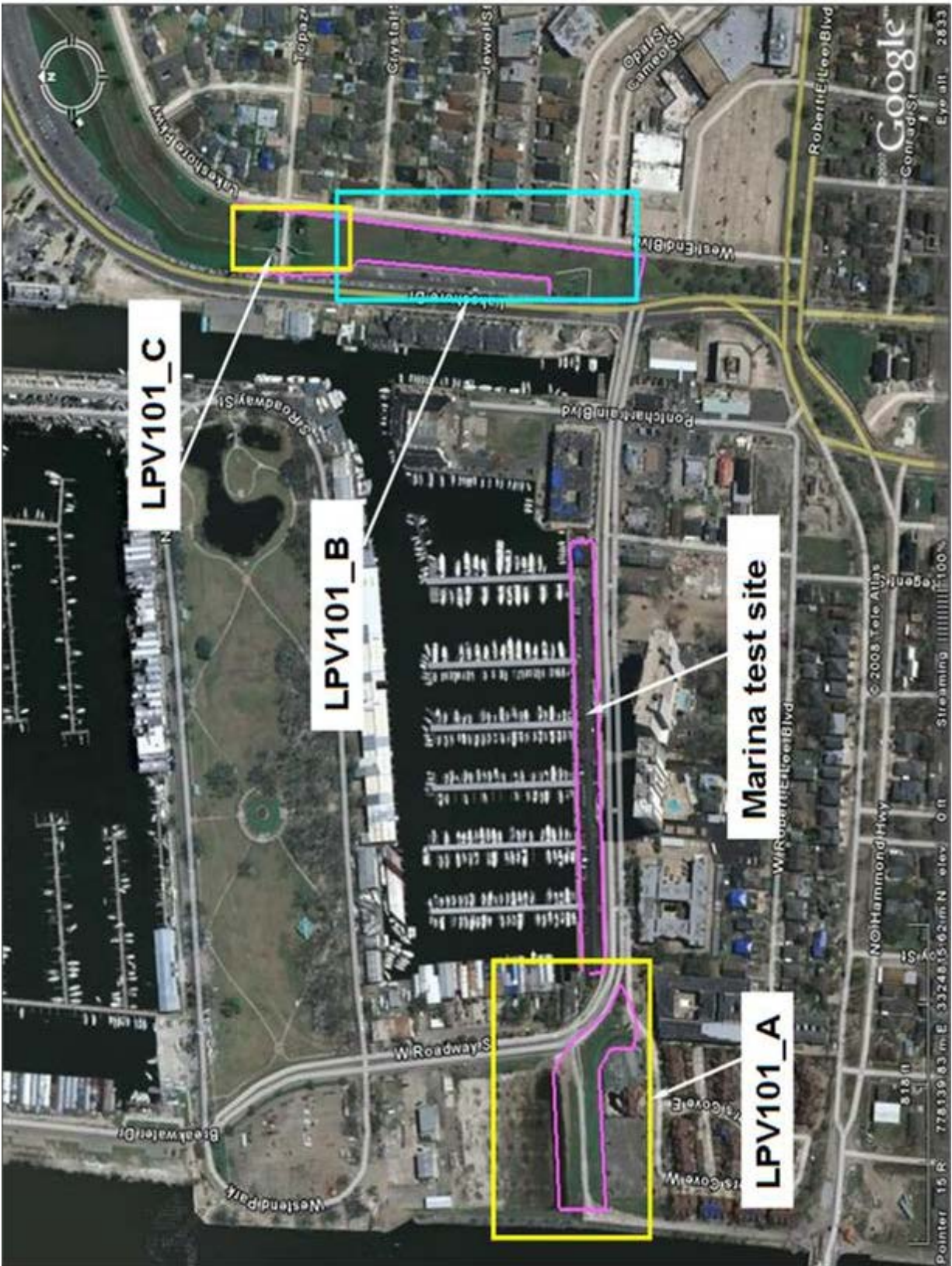


Figure 7. Anomalies interpreted from EM31 survey, LPV101_A.

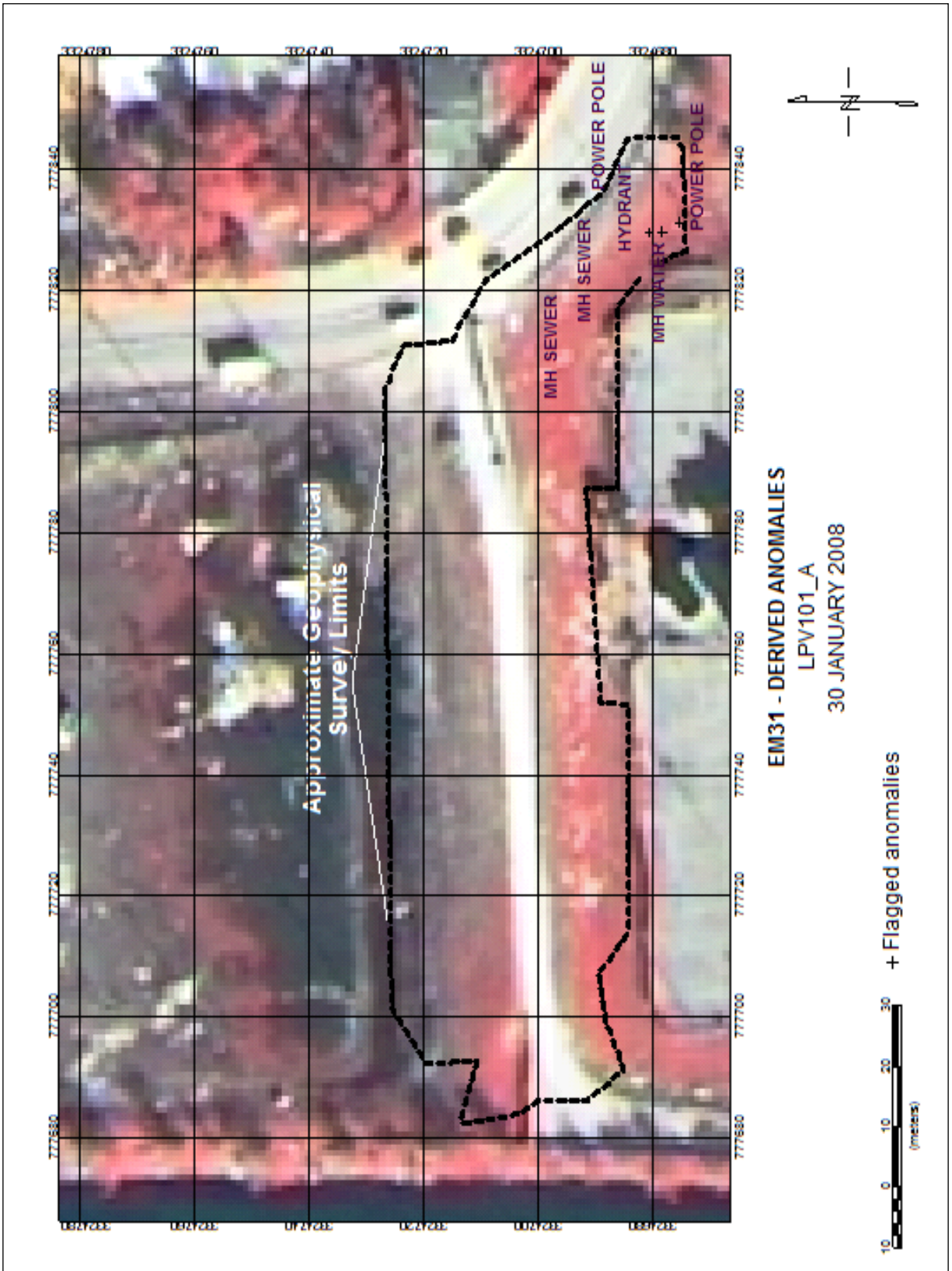


Figure 8. Anomalies interpreted from EM31 survey, LPV101_B.

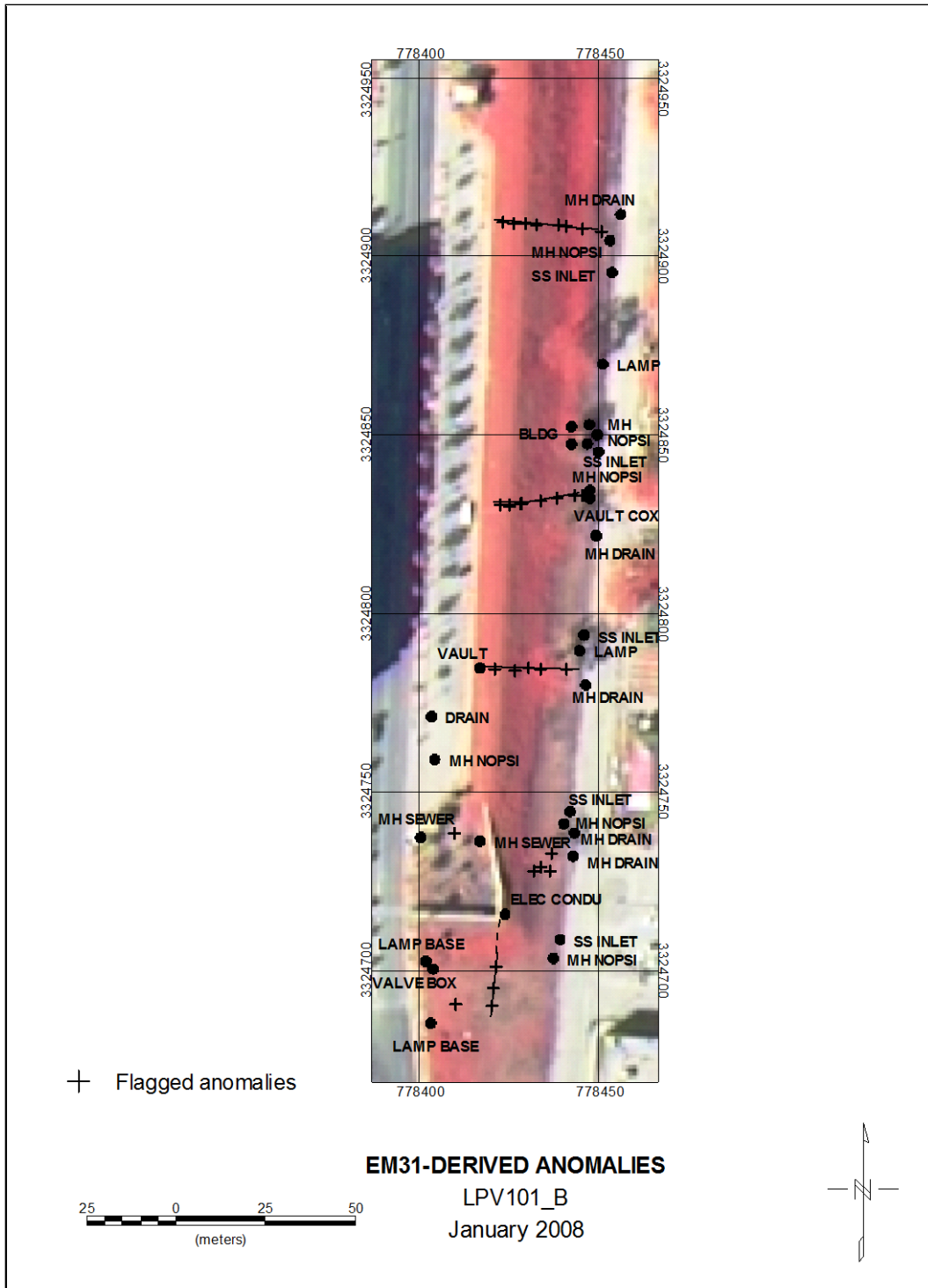


Figure 9. Anomalies interpreted from EM31 survey, LPV101_C.

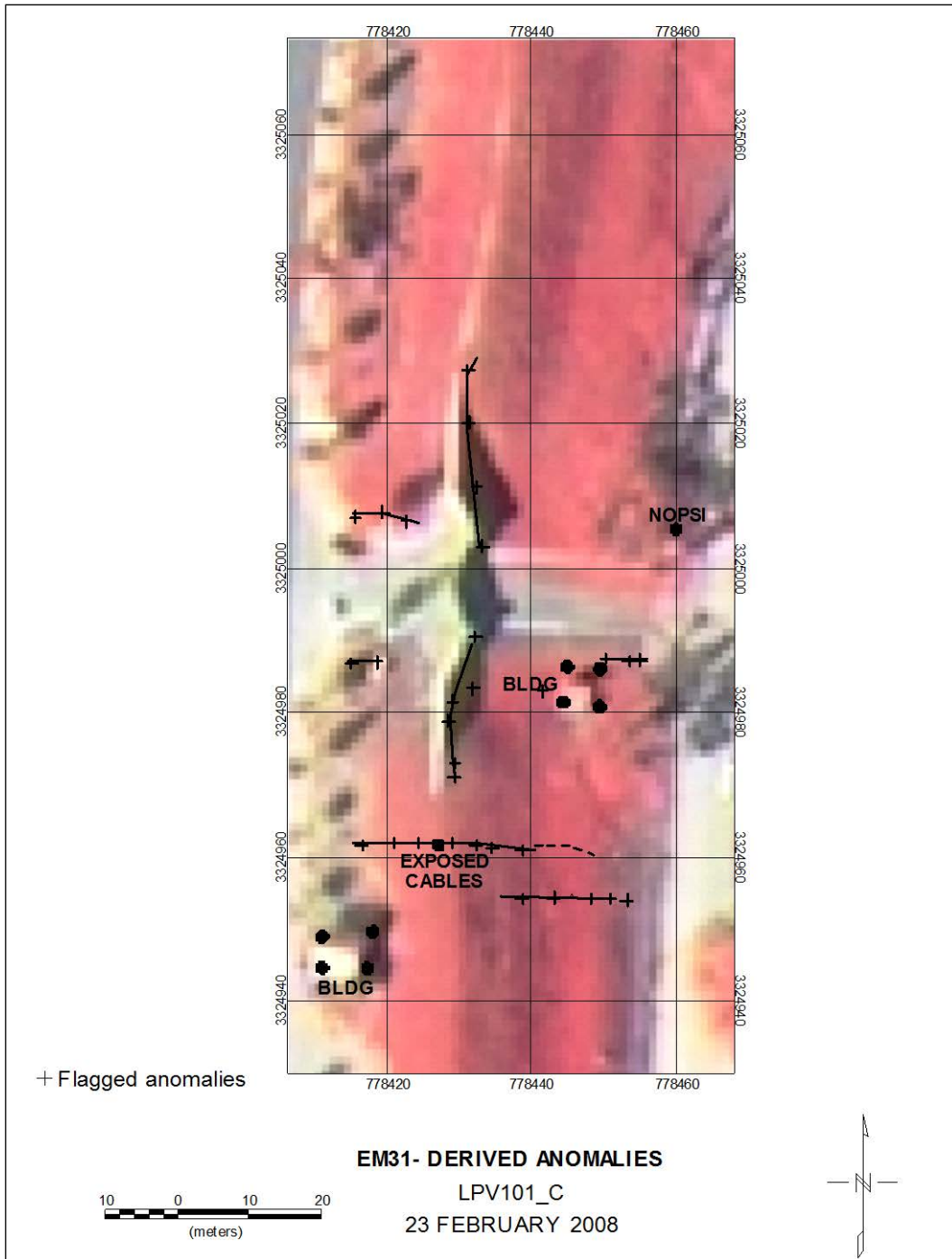


Figure 10. LPV102 survey area.



Figure 11. Anomalies interpreted from EM31 survey, LPV102_A.

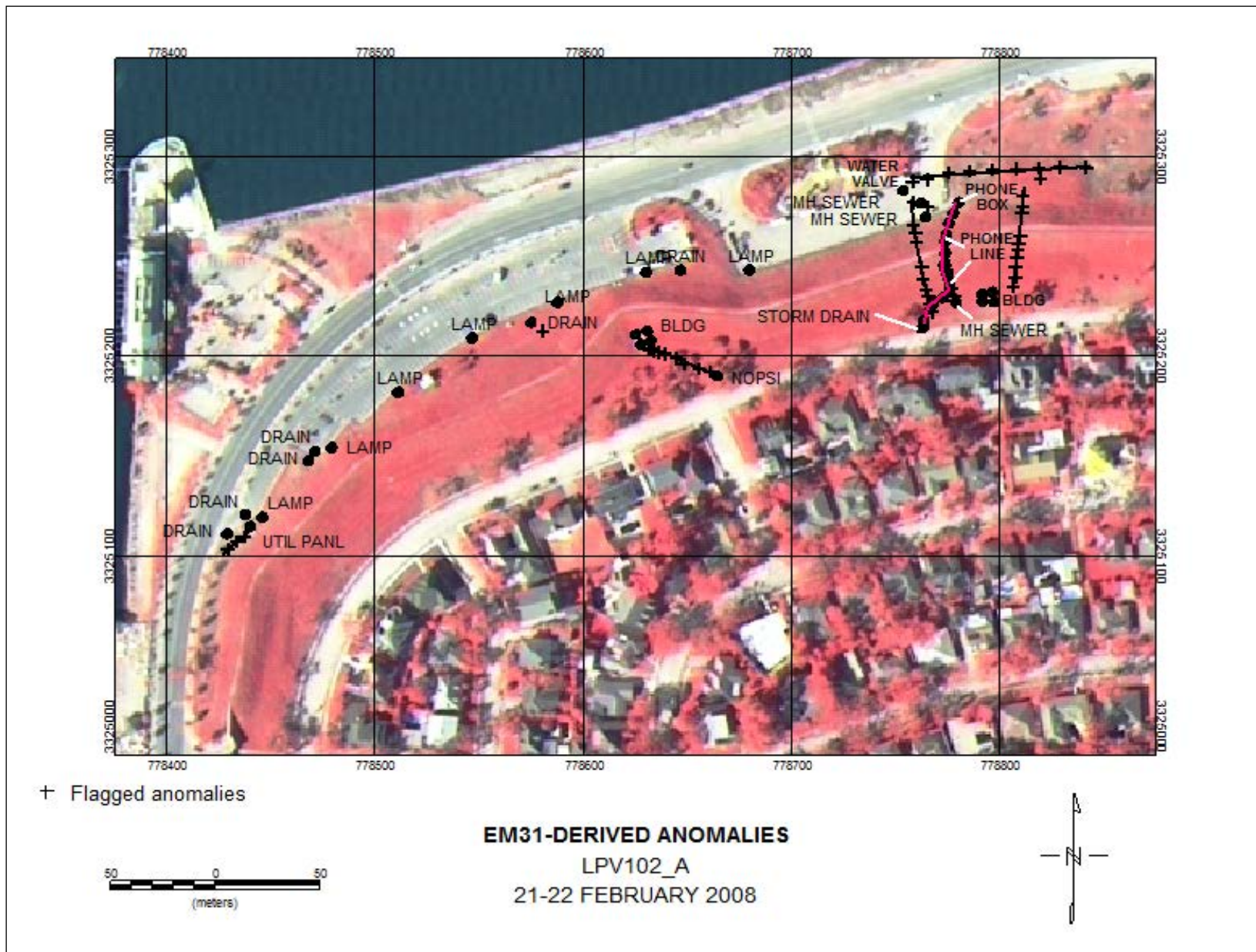


Figure 12. Anomalies interpreted from EM31 survey, LPV102_B.

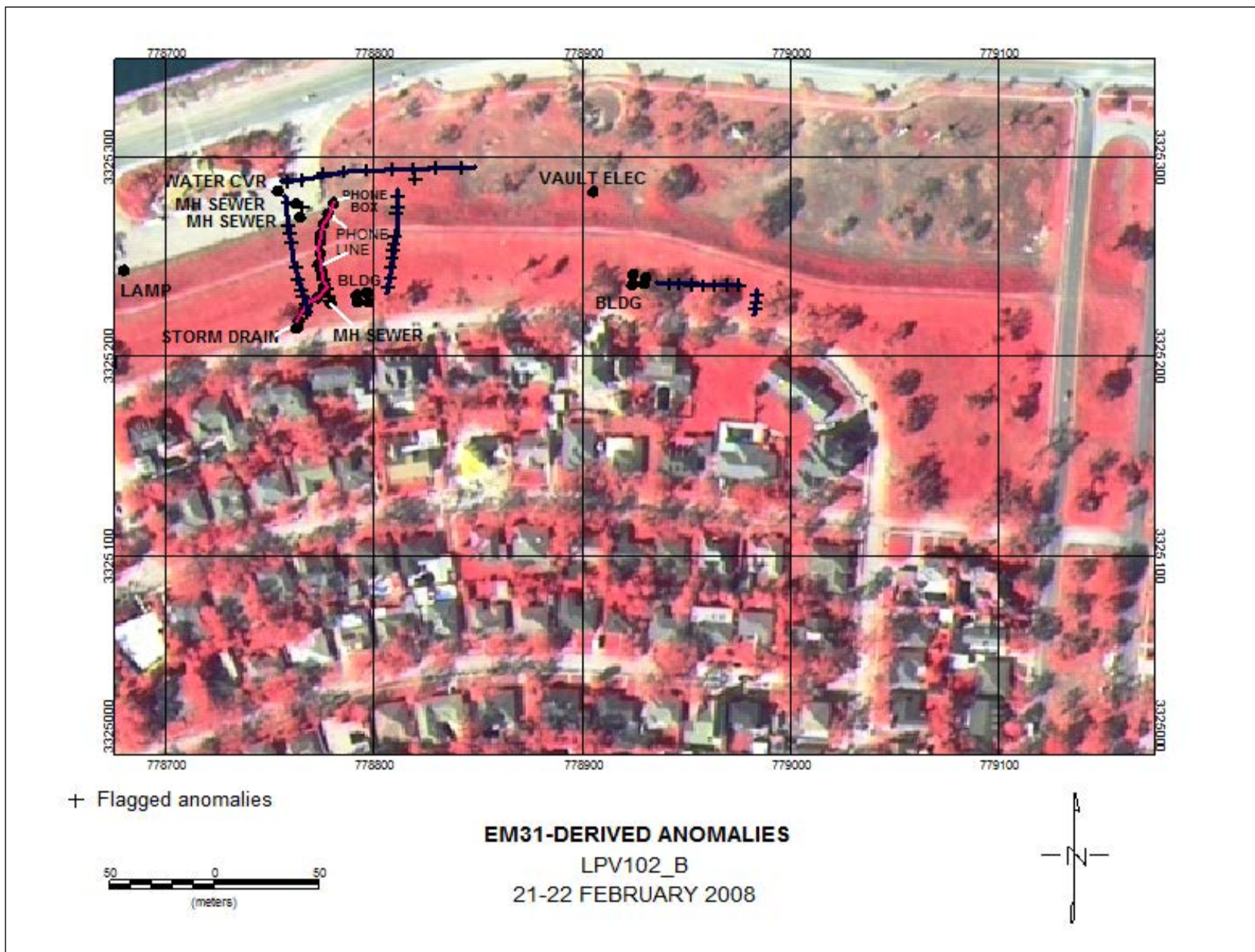


Figure 13. Anomalies interpreted from EM31 survey, LPV102_C.

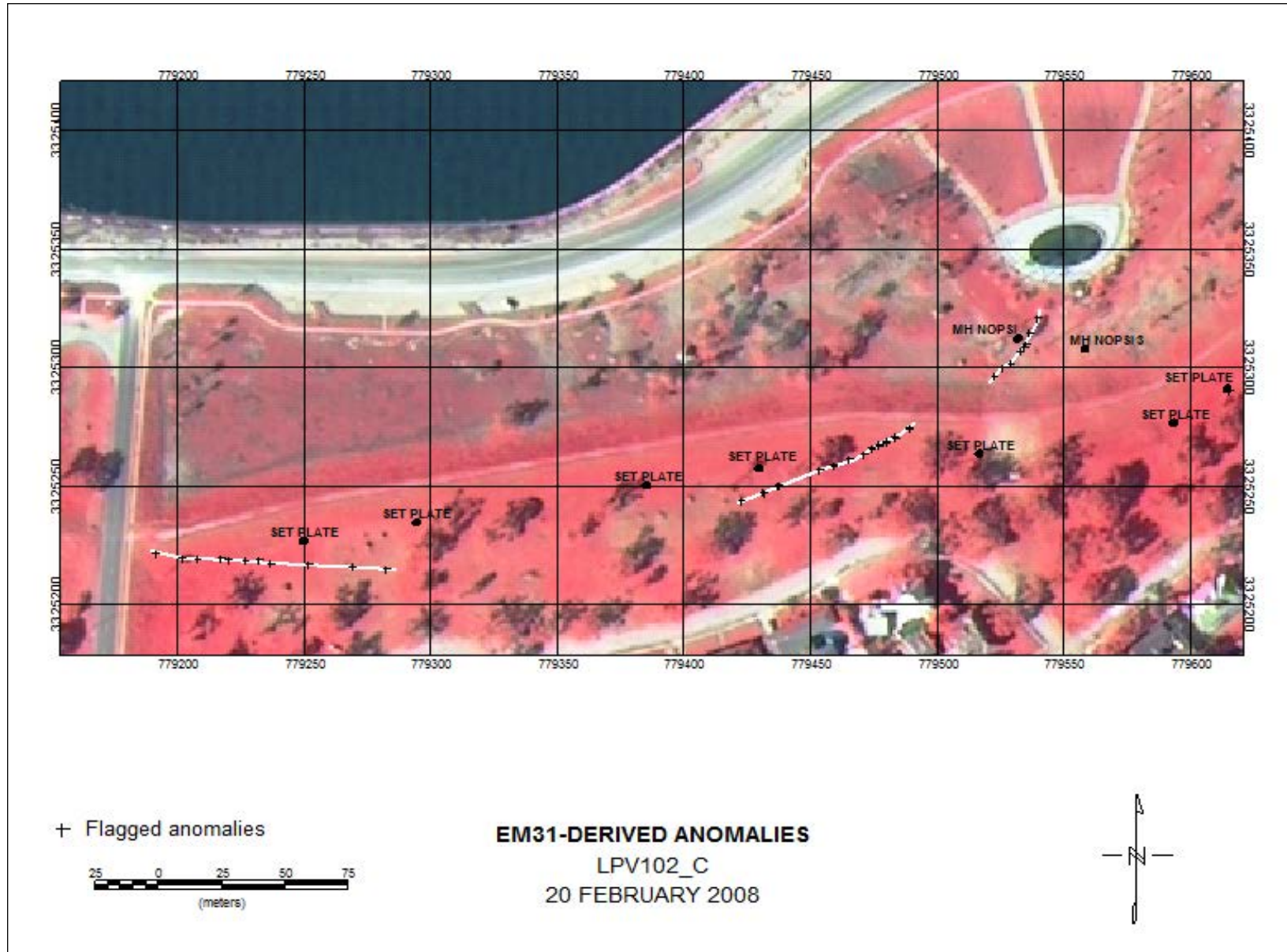


Figure 14. Anomalies interpreted from EM31 survey, LPV102_D.

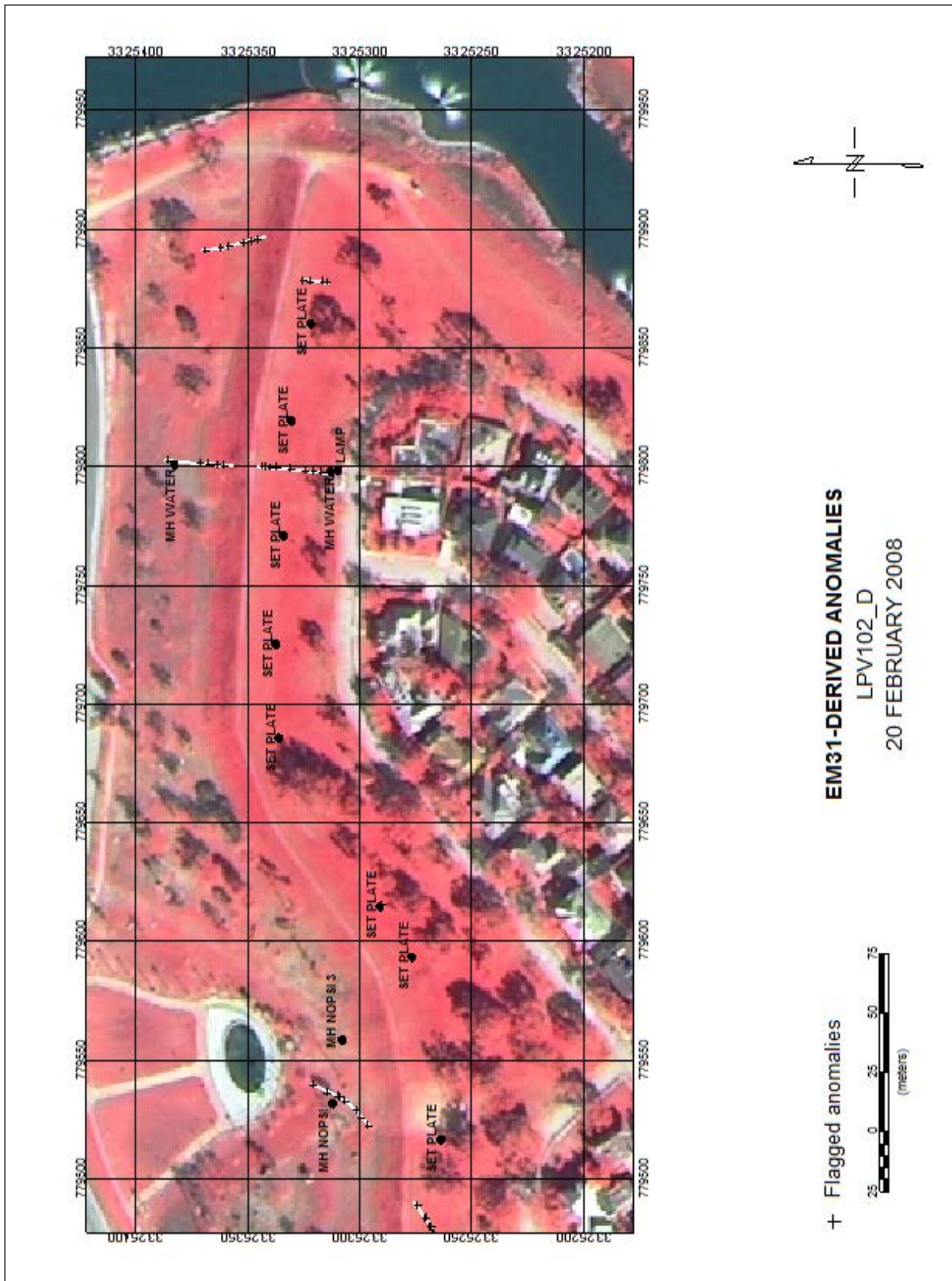
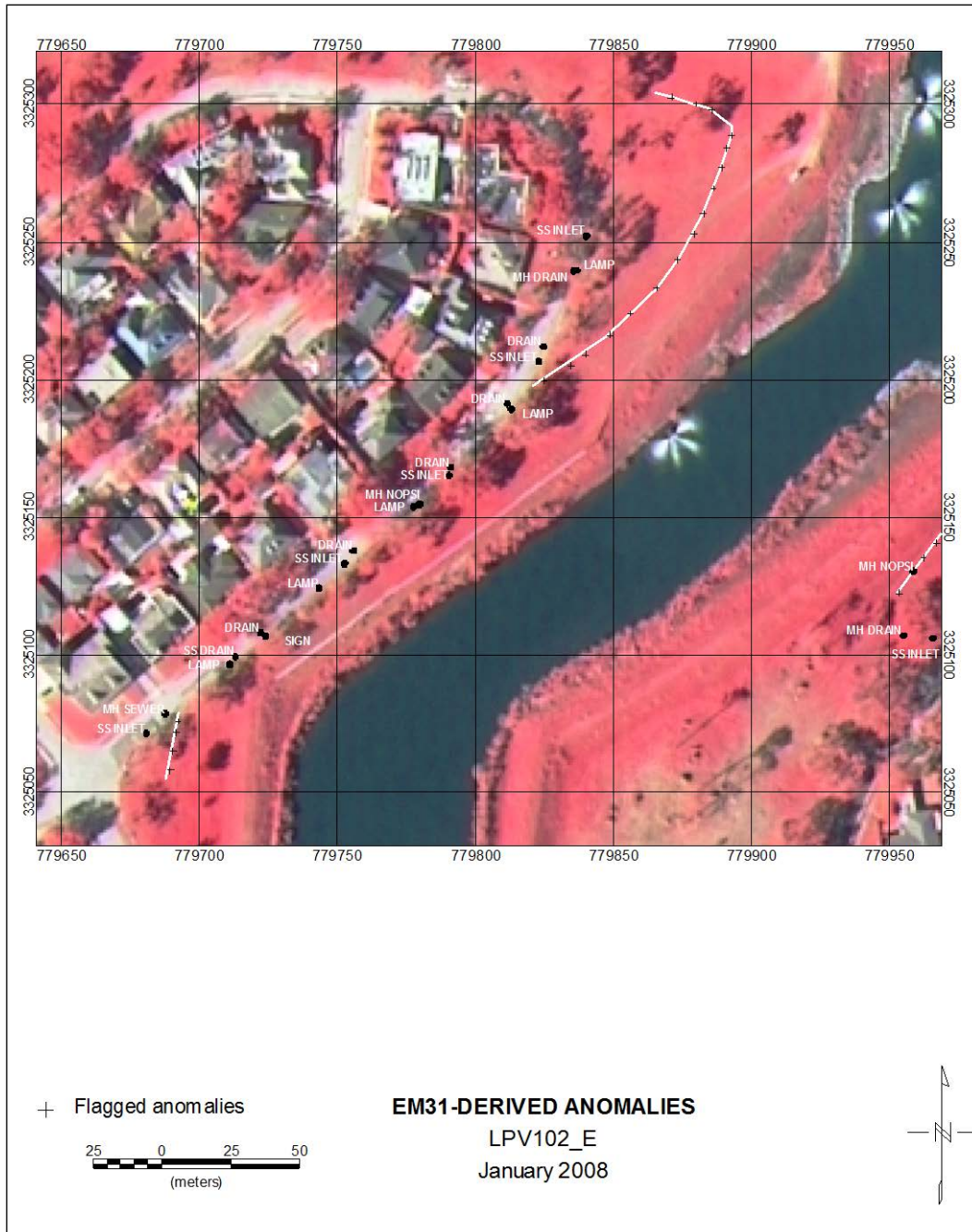


Figure 15. Anomalies interpreted from EM31 survey, LPV102_E.



LPV103

LPV103 is located between the east bank of the Orleans Avenue Canal and the west bank of the London Avenue Canal along Lakeshore Drive. The site is divided into 12 sections designated LPV103_AA through LPV103_K for presentation purposes (Figure 16). The anomalies for LPV103_AA through LPV103_K based on the results of the EM31 surveys are presented in

Figures 17 through 28, respectively. The locations of the flagged anomalies for LPV103 are presented in Appendix A, Table A3. The EM31 conductivity and in-phase maps for LPV103 are shown in Appendix B, Figures B17 through B40.

LPV104

LPV104 is located between the west bank of the London Avenue Canal and the western approach of the Senator Ted Hickey Bridge. The site is divided into 11 sections designated LPV104_A through LPV104_K for presentation purposes (Figure 29). The anomalies for LPV104_A through LPV104_K based on the results of the EM31 surveys are shown in Figures 30 through 40, respectively. The locations of the flagged anomalies for LPV104 are presented in Appendix A, Table A4. The EM31 conductivity and in-phase maps for LPV104 are shown in Appendix B, Figures B41 through B62.

Early in the study, a trench was excavated across a linear EM31 anomaly at LPV104_K to verify the effectiveness of the geophysical surveys in locating buried utilities (Figure 41). A multi-strand copper cable approximately 1.25 cm (0.5 in.) in diameter was located at a depth of approximately 0.6 m (2 ft), as shown in Figure 42.

HPO personnel were also interested in determining the path of a storm sewer located between Leon C. Simon Drive and an access road adjacent to and east of Leroy Johnson Drive (LPV104_K). HPO personnel assumed that the sewer drained into a sewer line running along Leon C. Simon Drive, but did not know where or if they connected. The Universal Transverse Mercator System (UTM) coordinates of the storm sewer grate are (785524.6, 3325885.6) and is noted in Figure 40 as "SEWER1." Initially, HPO personnel tried to map the path of the storm sewer by making a series of excavations down to the storm sewer pipe at selected locations along an assumed path. The first two excavations were located approximately 10 m (33 ft) and 20 m (66 ft) southeast of the sewer grate and successfully located the pipe (Figure 40). It appeared that the projected sewer line path was crossing underneath the levee. A third excavation, approximately 60 m (200 ft) from the sewer grate, was dug to a depth of approximately 2.5 m (8 ft), but it failed to locate the pipe.

Figure 16. LPV103 survey area.

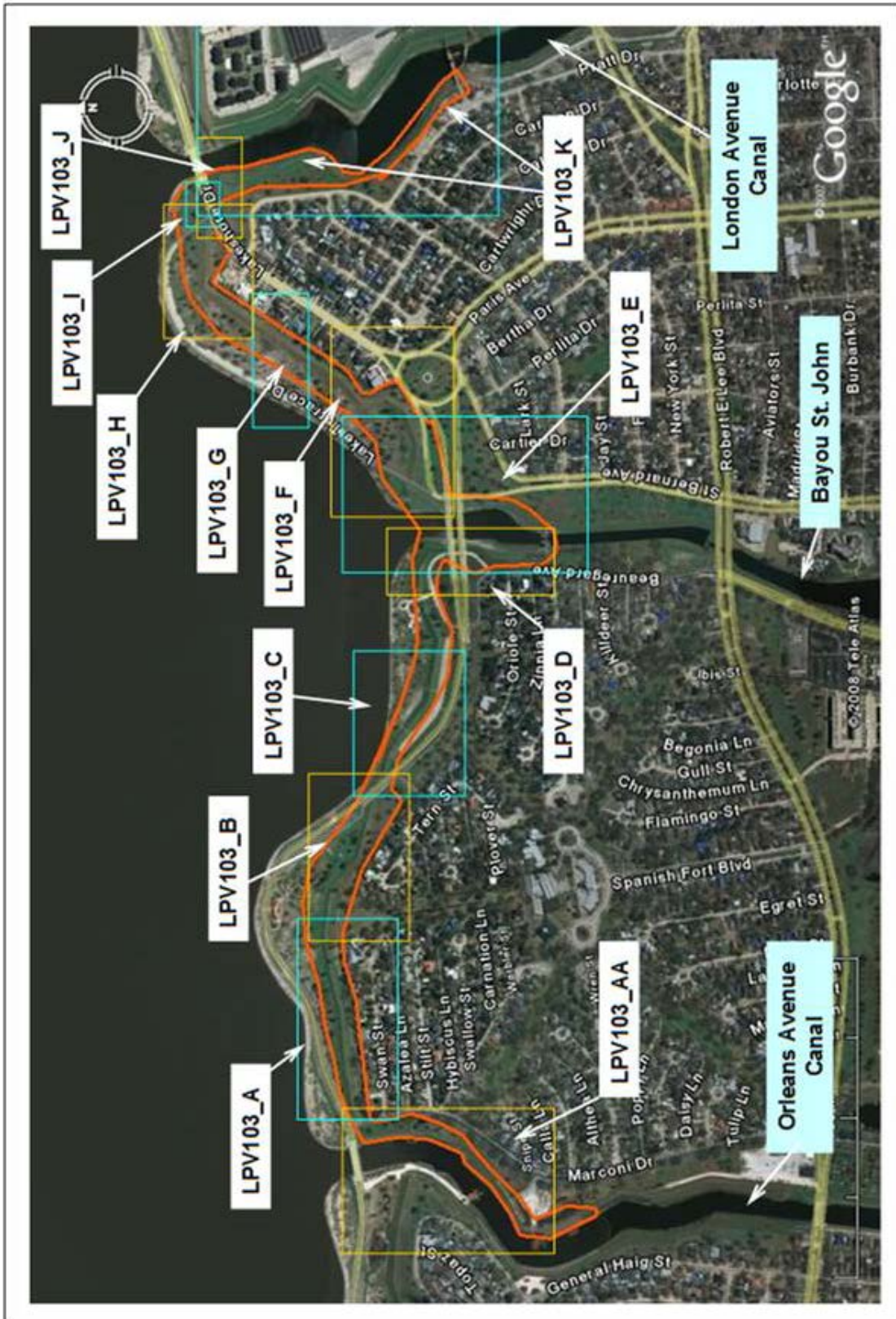


Figure 17. Anomalies interpreted from EM31 survey, LPV103_AA.

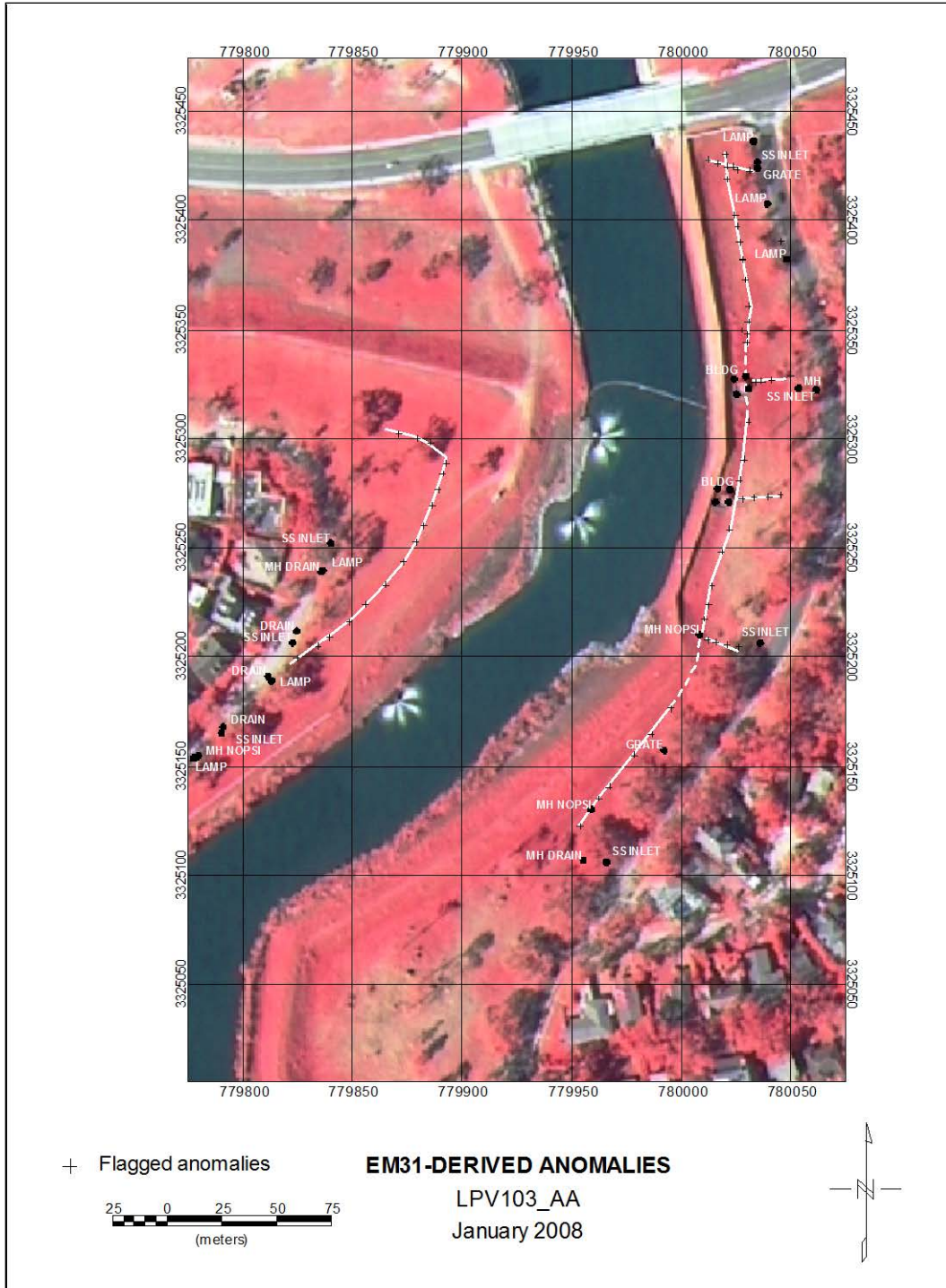


Figure 21. Anomalies interpreted from EM31 survey, LPV103_D.



Figure 22. Anomalies interpreted from EM31 survey, LPV103_E.

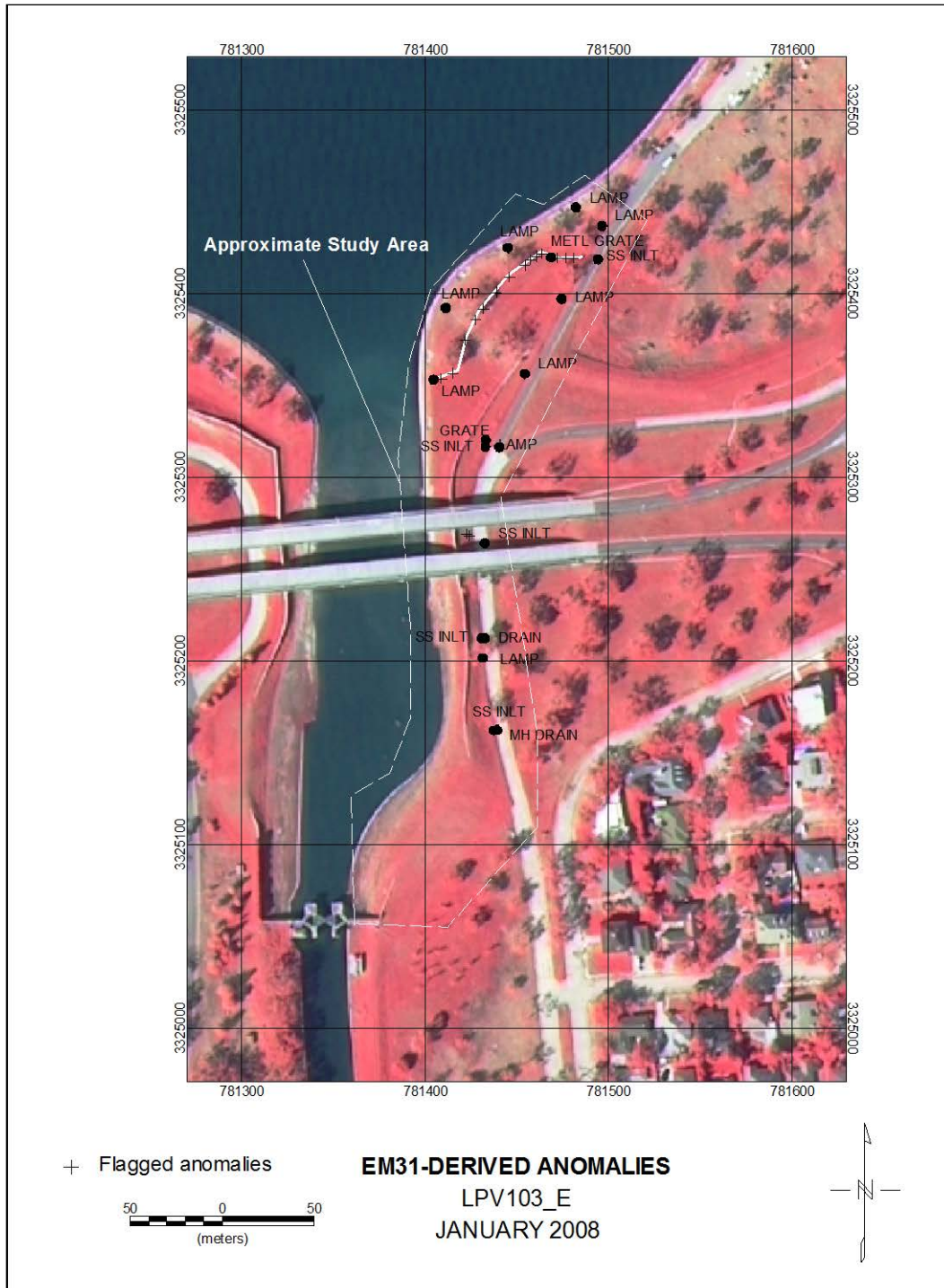


Figure 23. Anomalies interpreted from EM31 survey, LPV103_F.

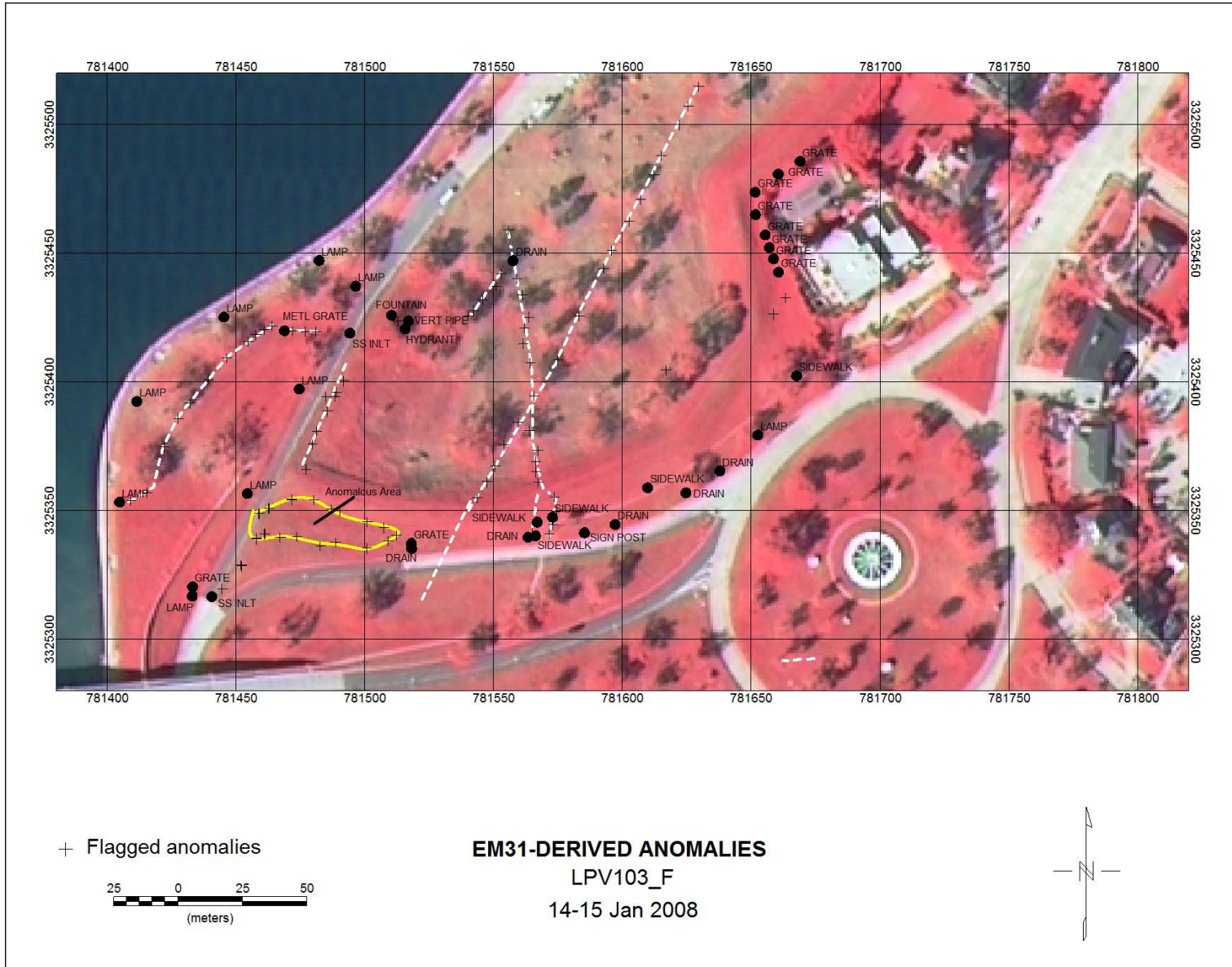


Figure 24. Anomalies interpreted from EM31 survey, LPV103_G.

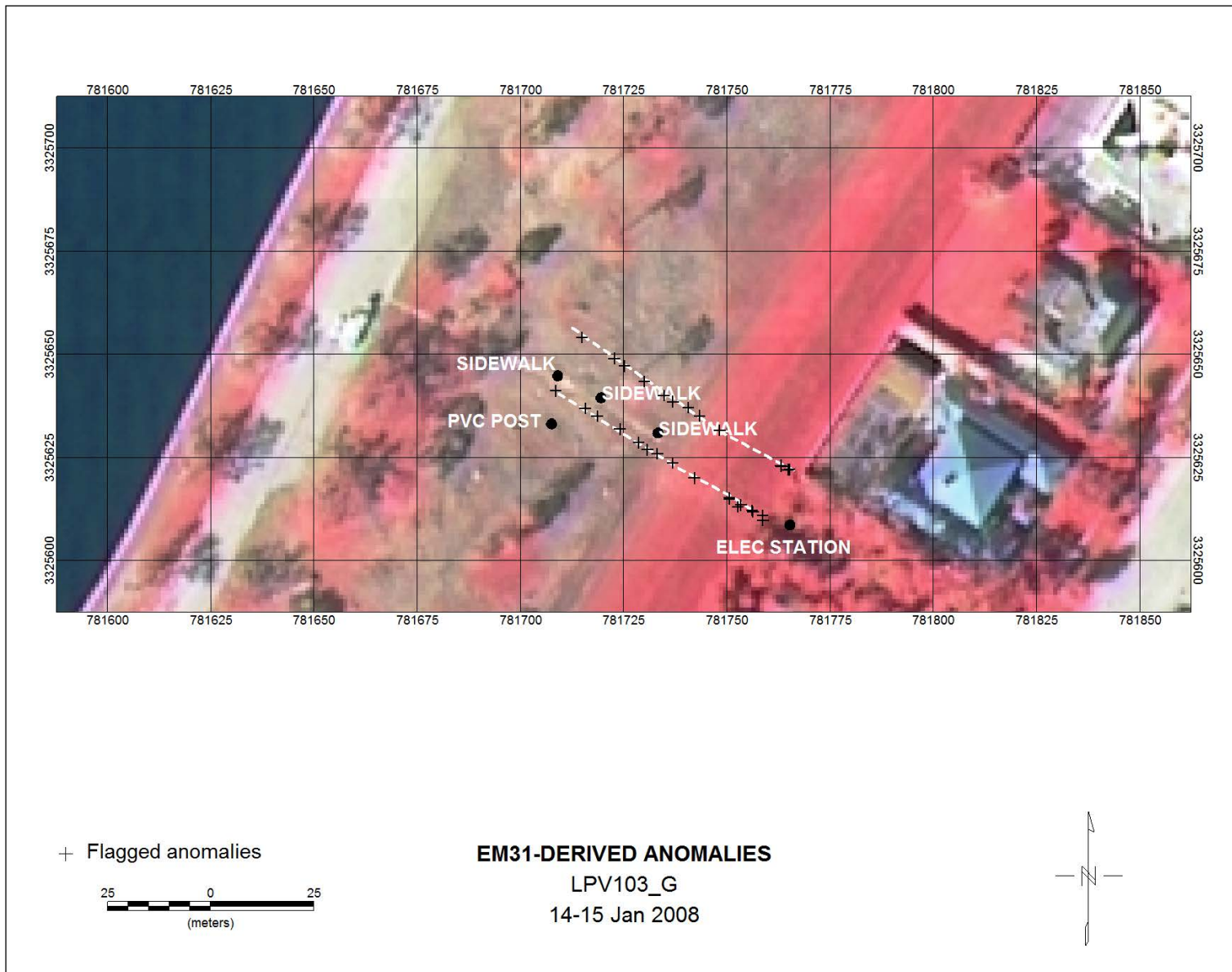


Figure 25. Anomalies interpreted from EM31 survey, LPV103_H.

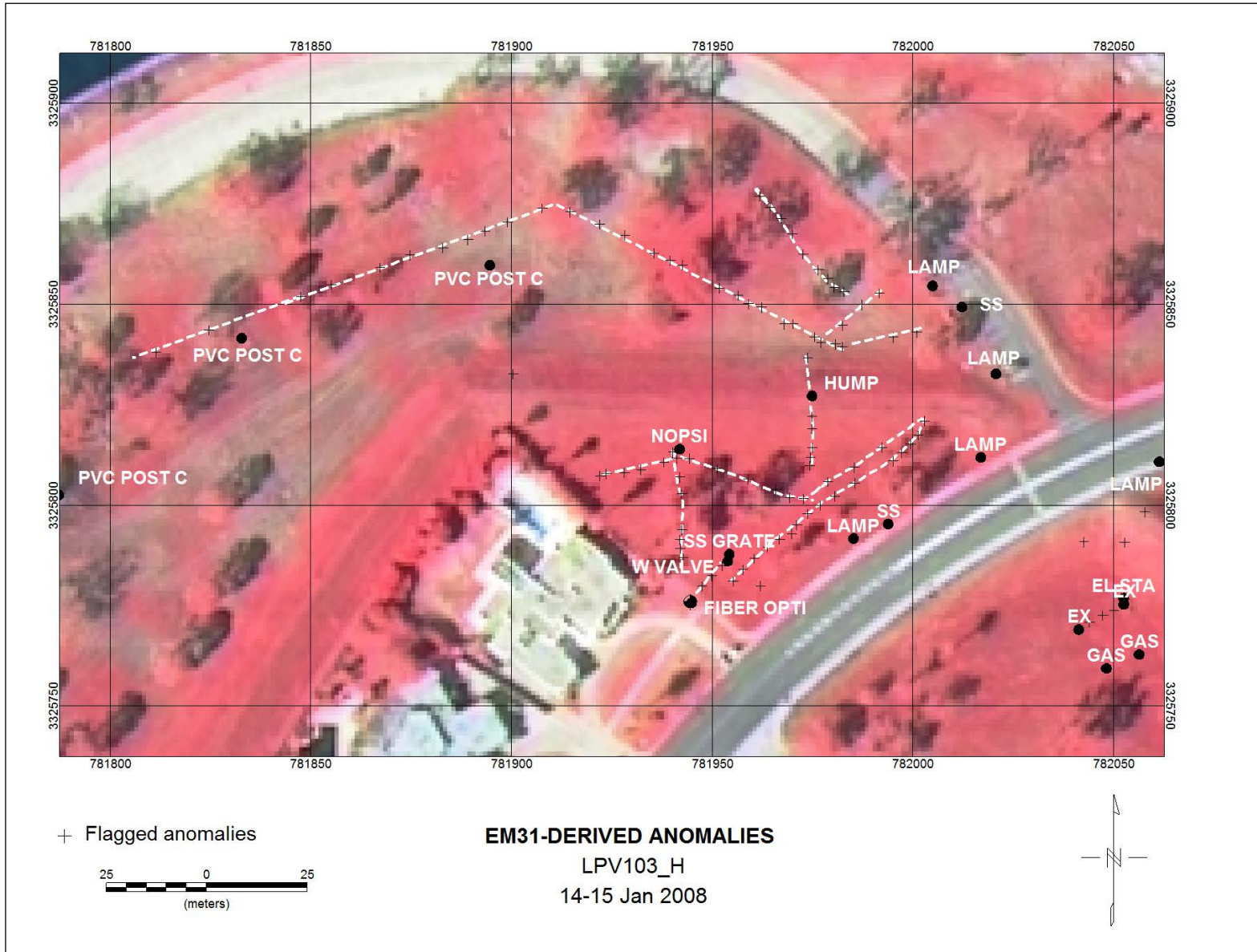


Figure 26. Anomalies interpreted from EM31 survey, LPV103_I.

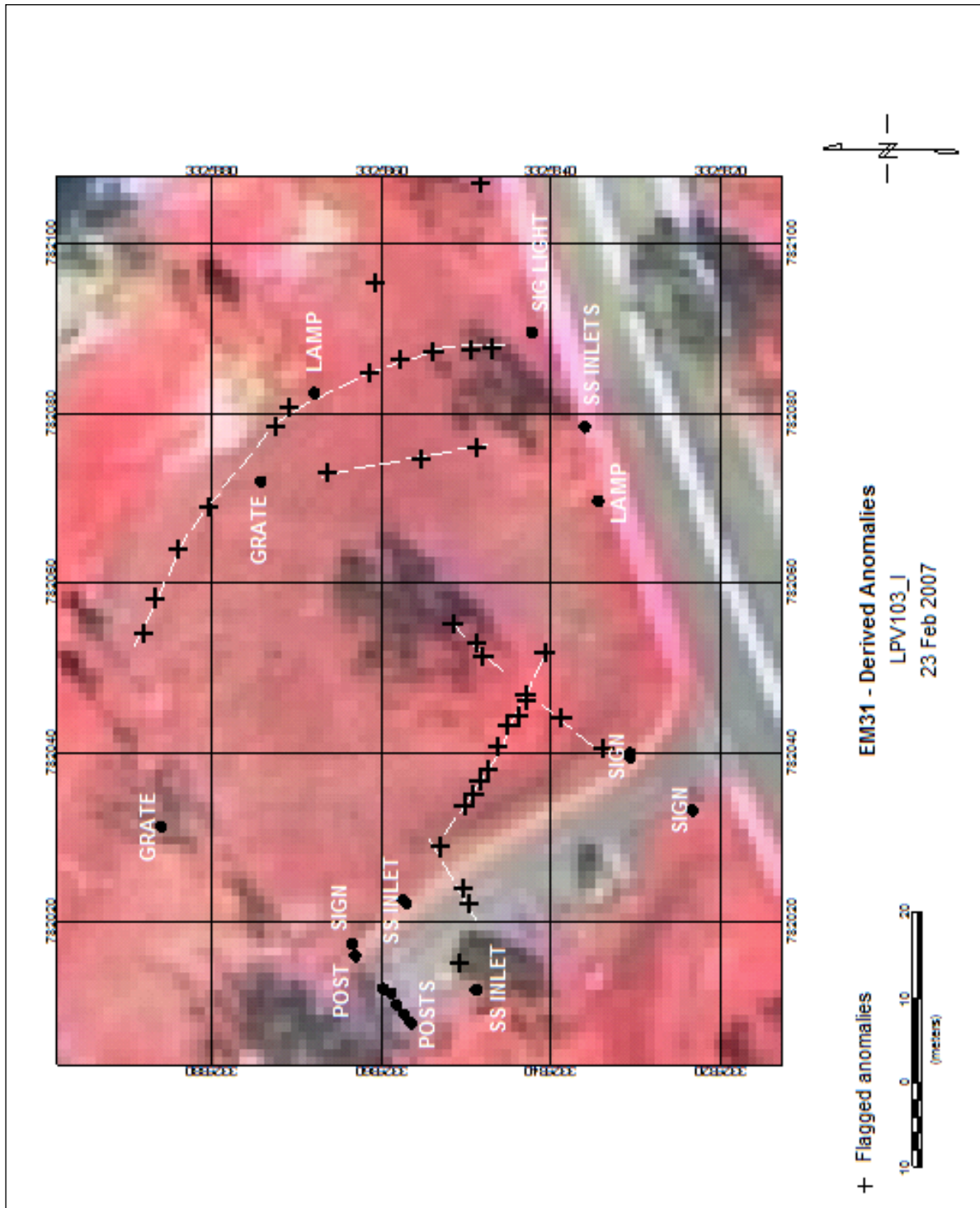


Figure 27. Anomalies interpreted from EM31 survey, LPV103_J.

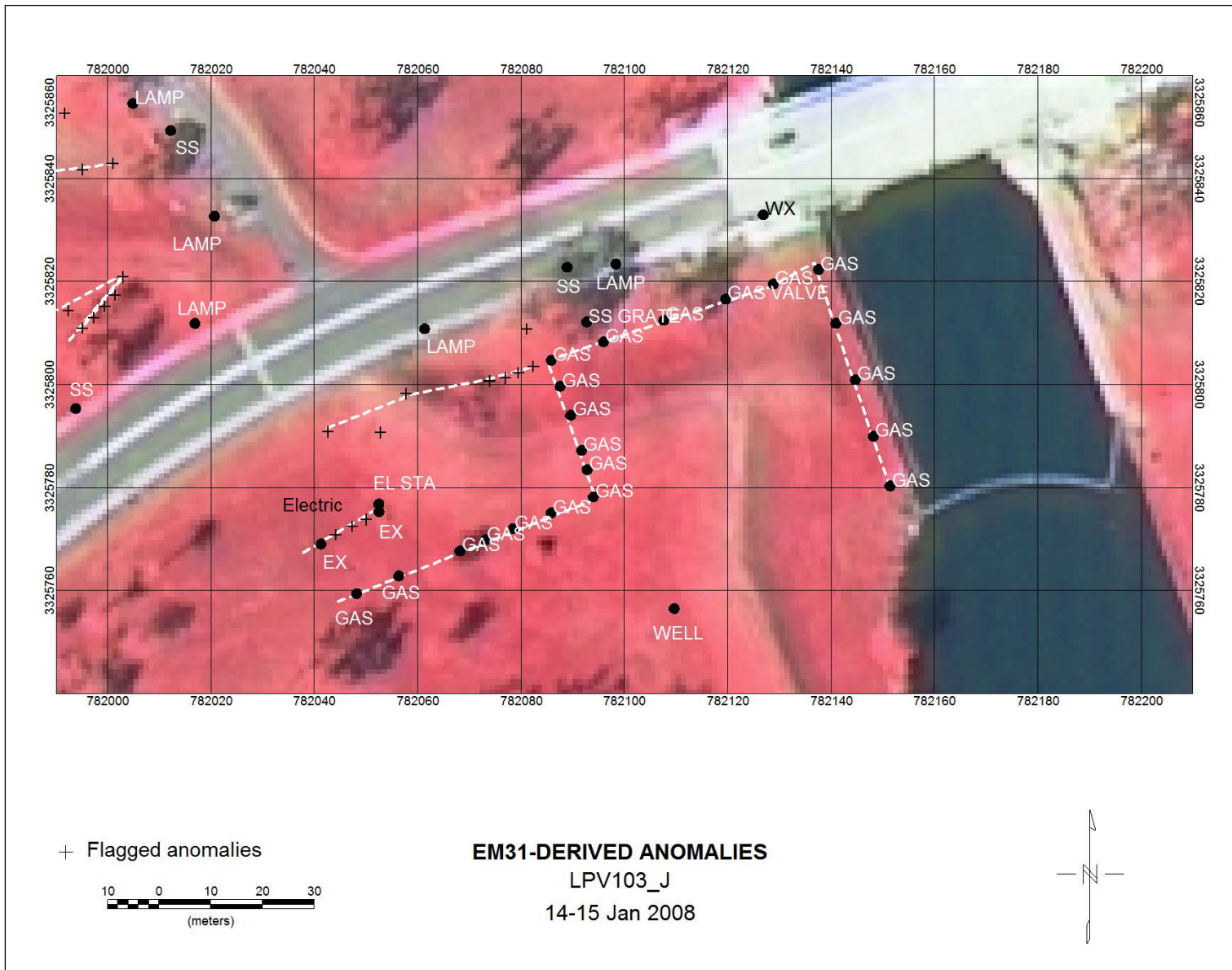


Figure 29. LPV104 survey area.

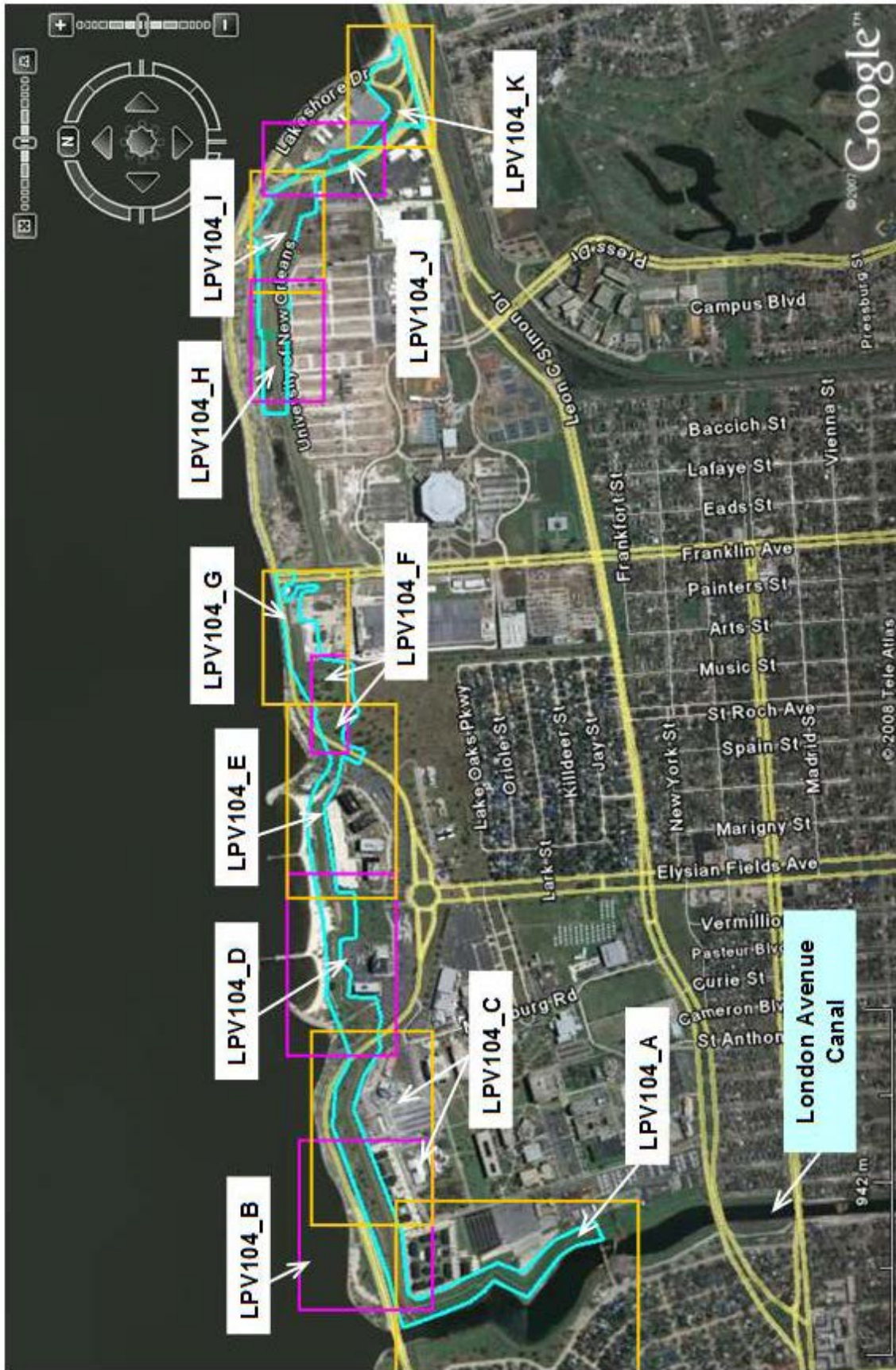


Figure 30. Anomalies interpreted from EM31 survey, LPV104_A.

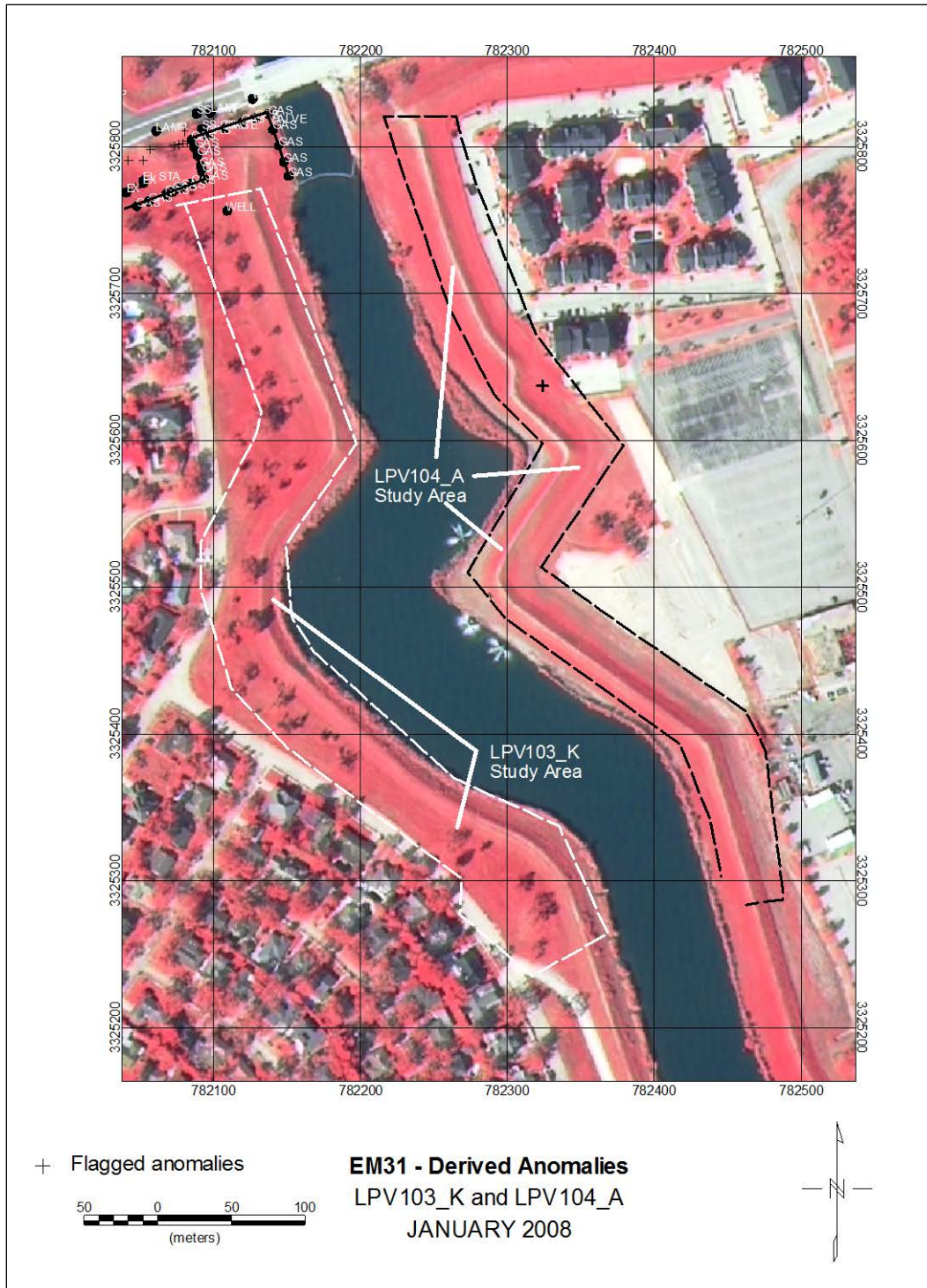


Figure 31. Anomalies interpreted from EM31 survey, LPV104_B.

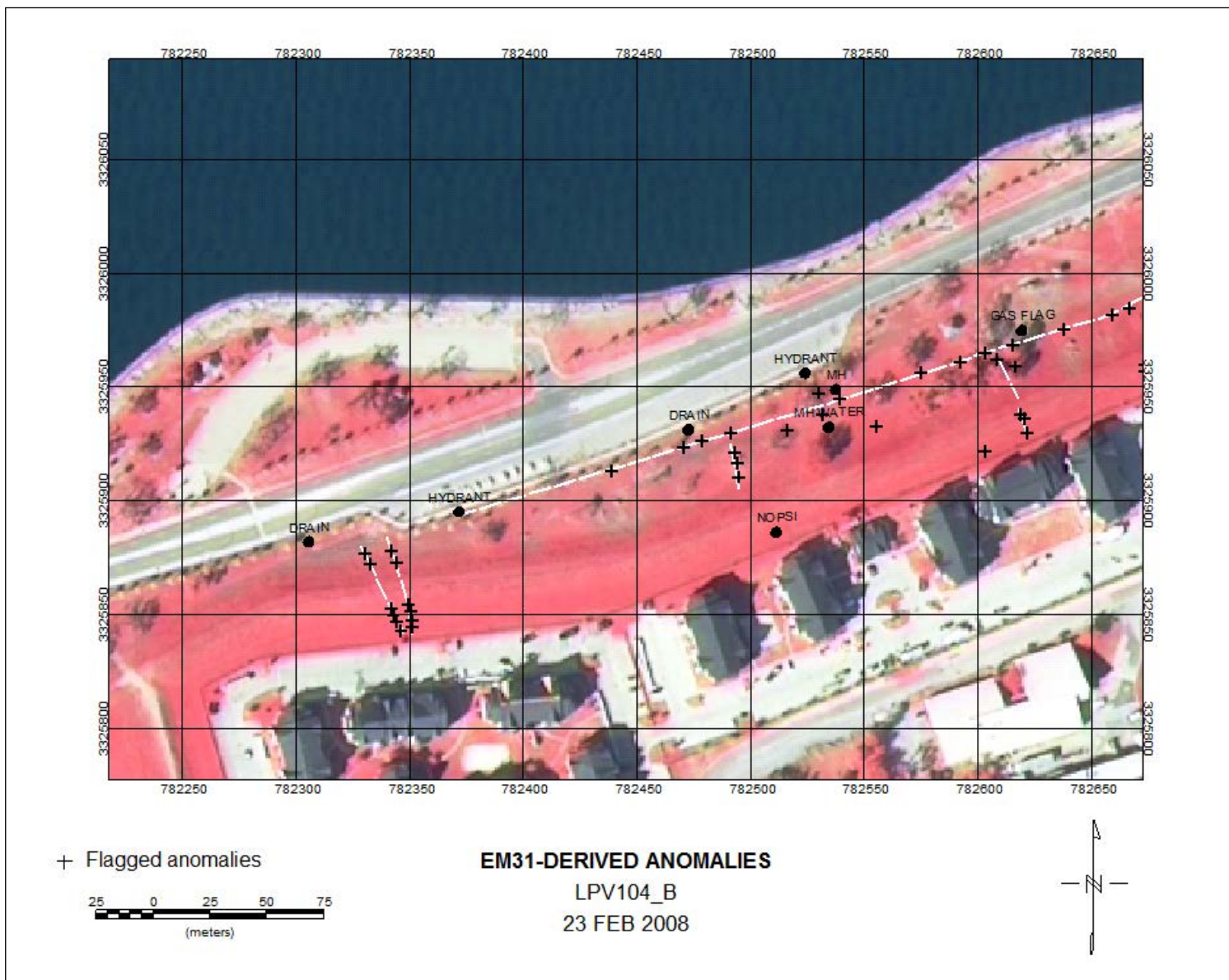


Figure 32. Anomalies interpreted from EM31 survey, LPV104_C.

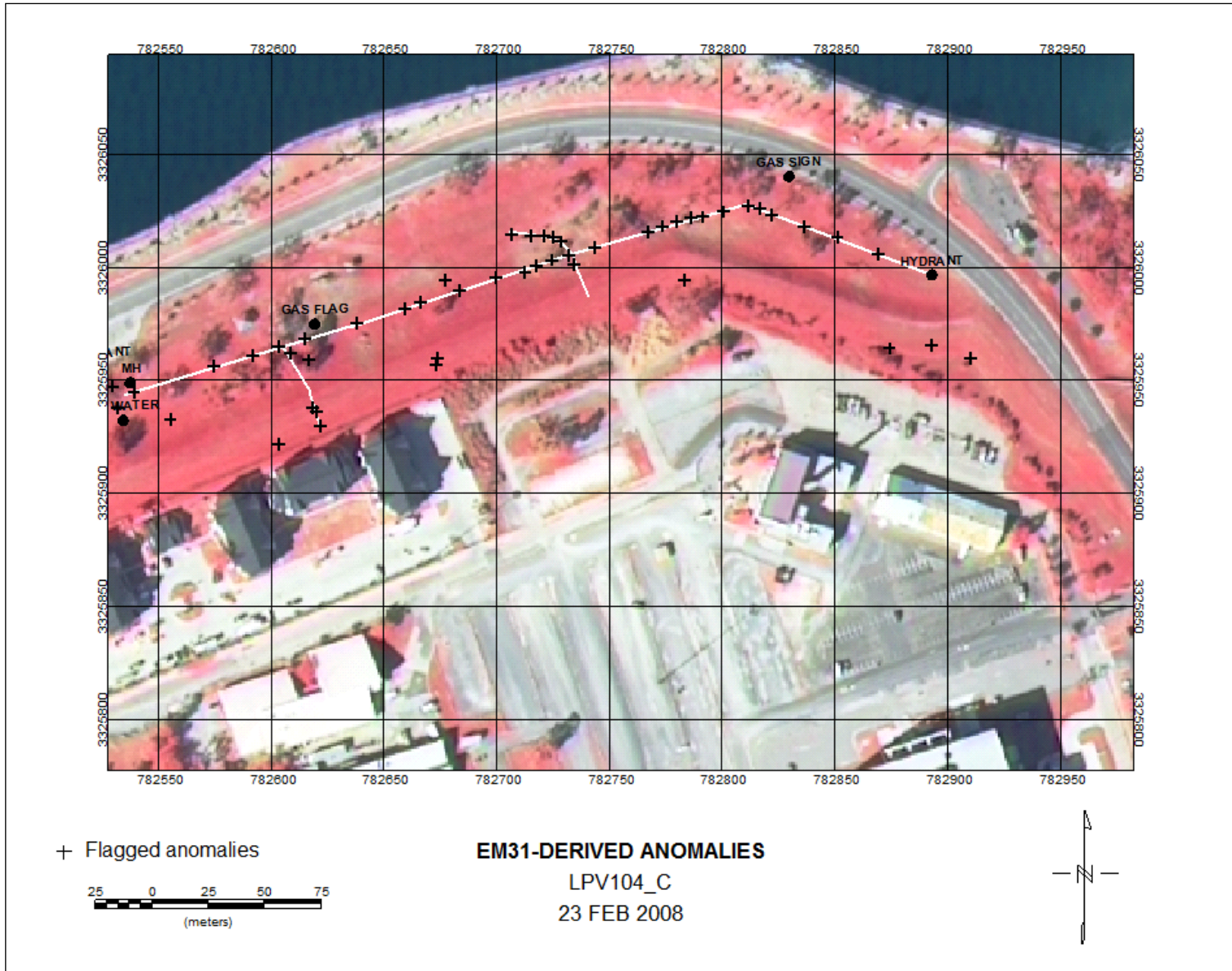


Figure 33. Anomalies interpreted from EM31 survey, LPV104_D.

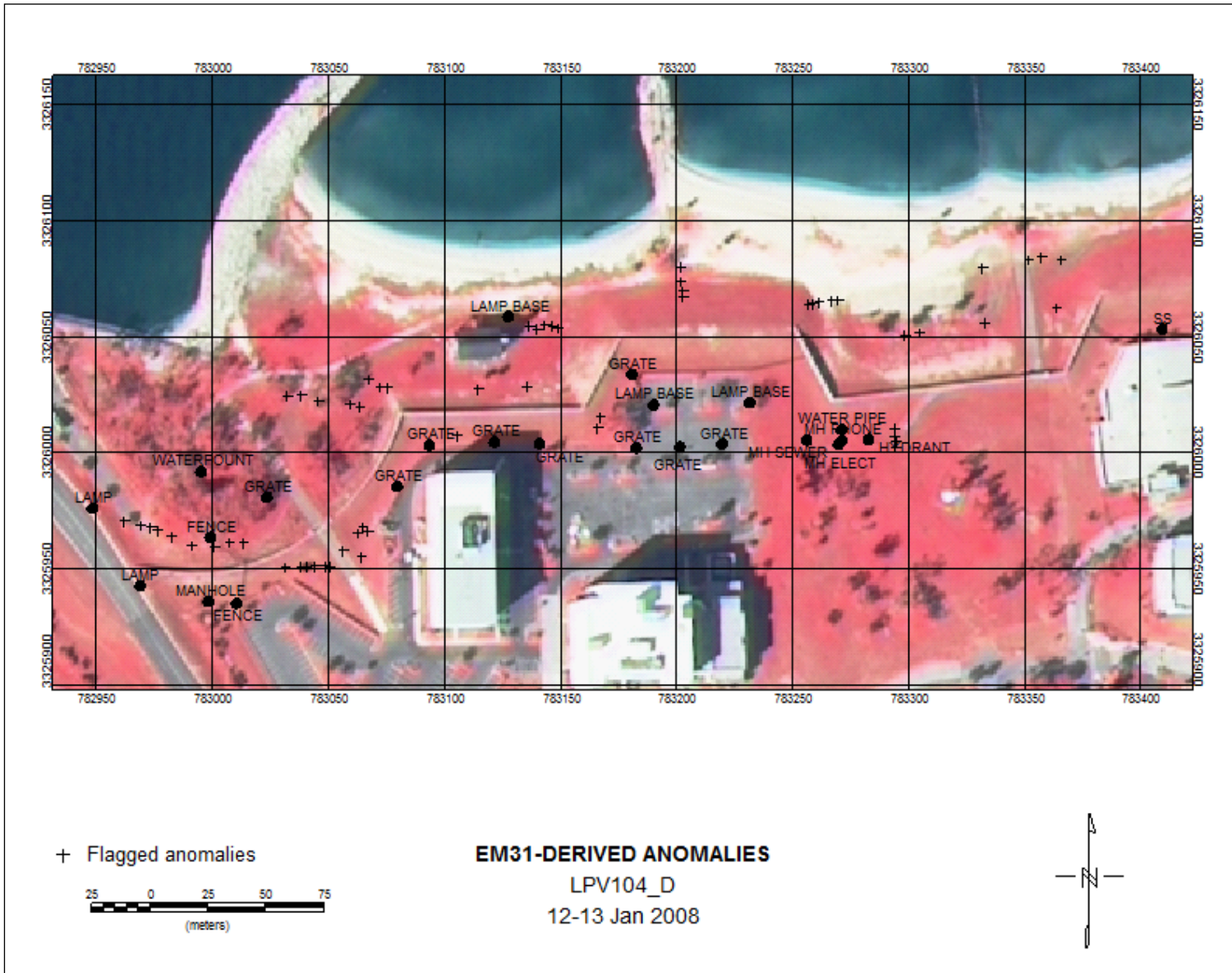


Figure 34. Anomalies interpreted from EM31 survey, LPV104_E.

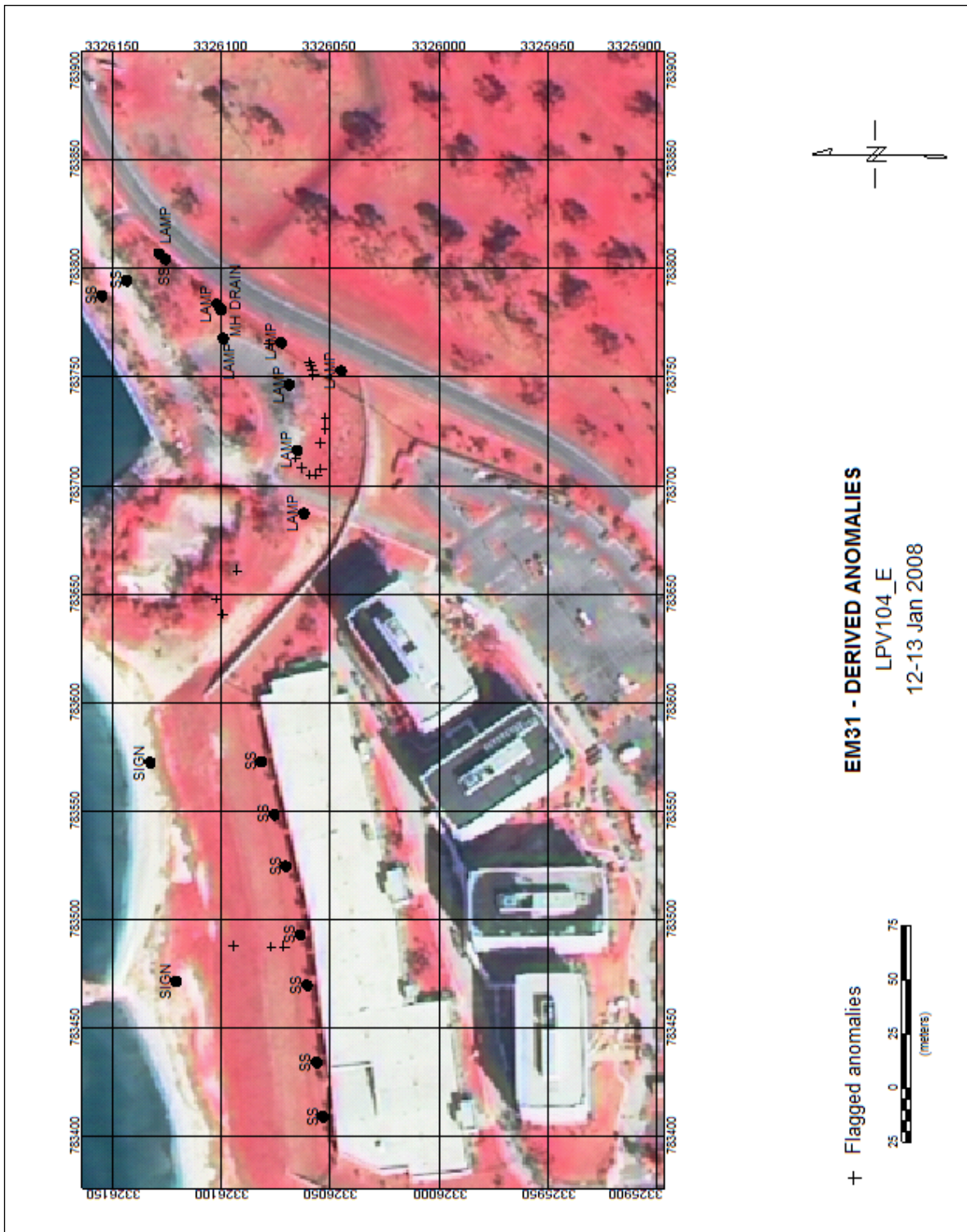


Figure 35. Anomalies interpreted from EM31 survey, LPV104_F.

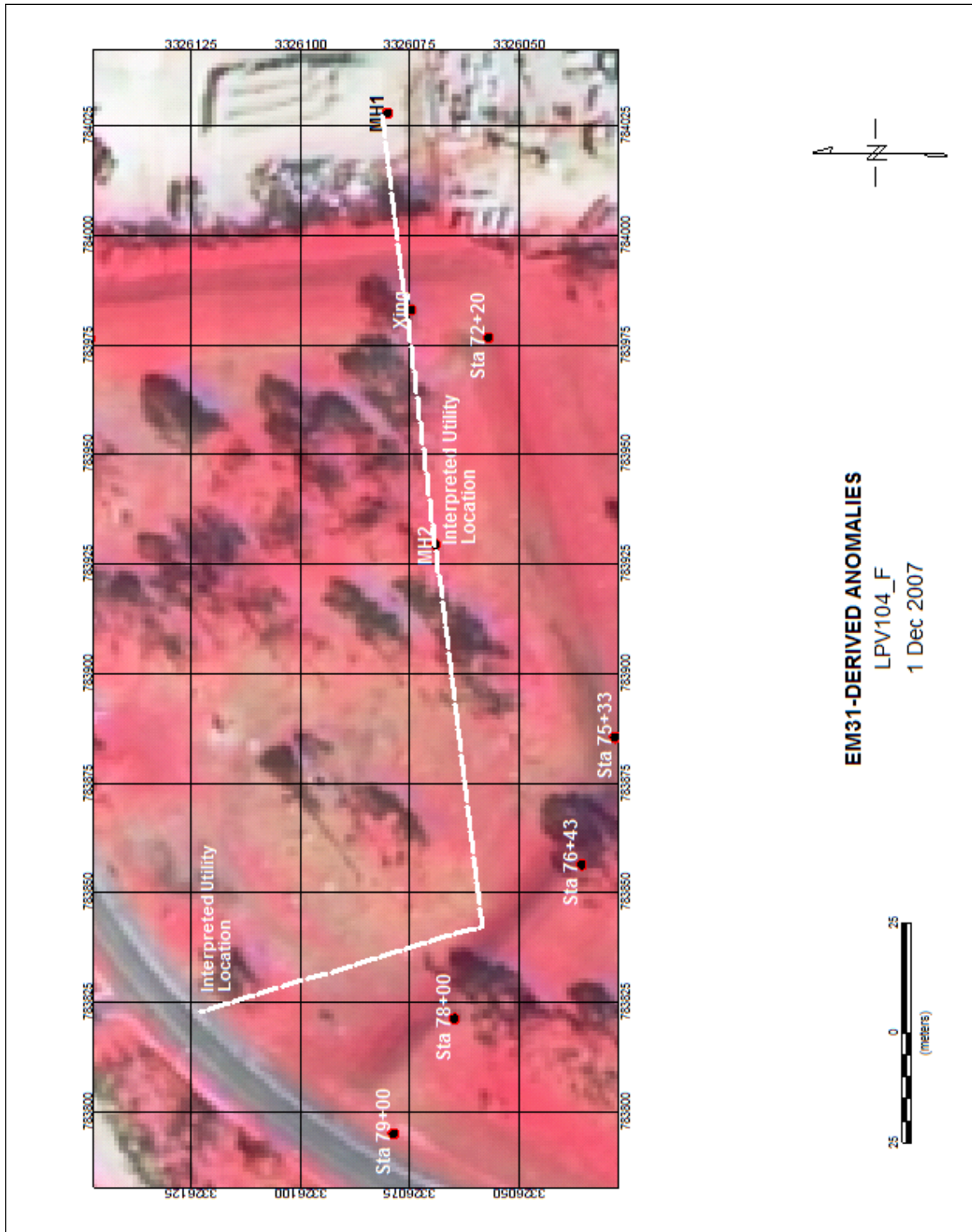


Figure 36. Anomalies interpreted from EM31 survey, LPV104_G.

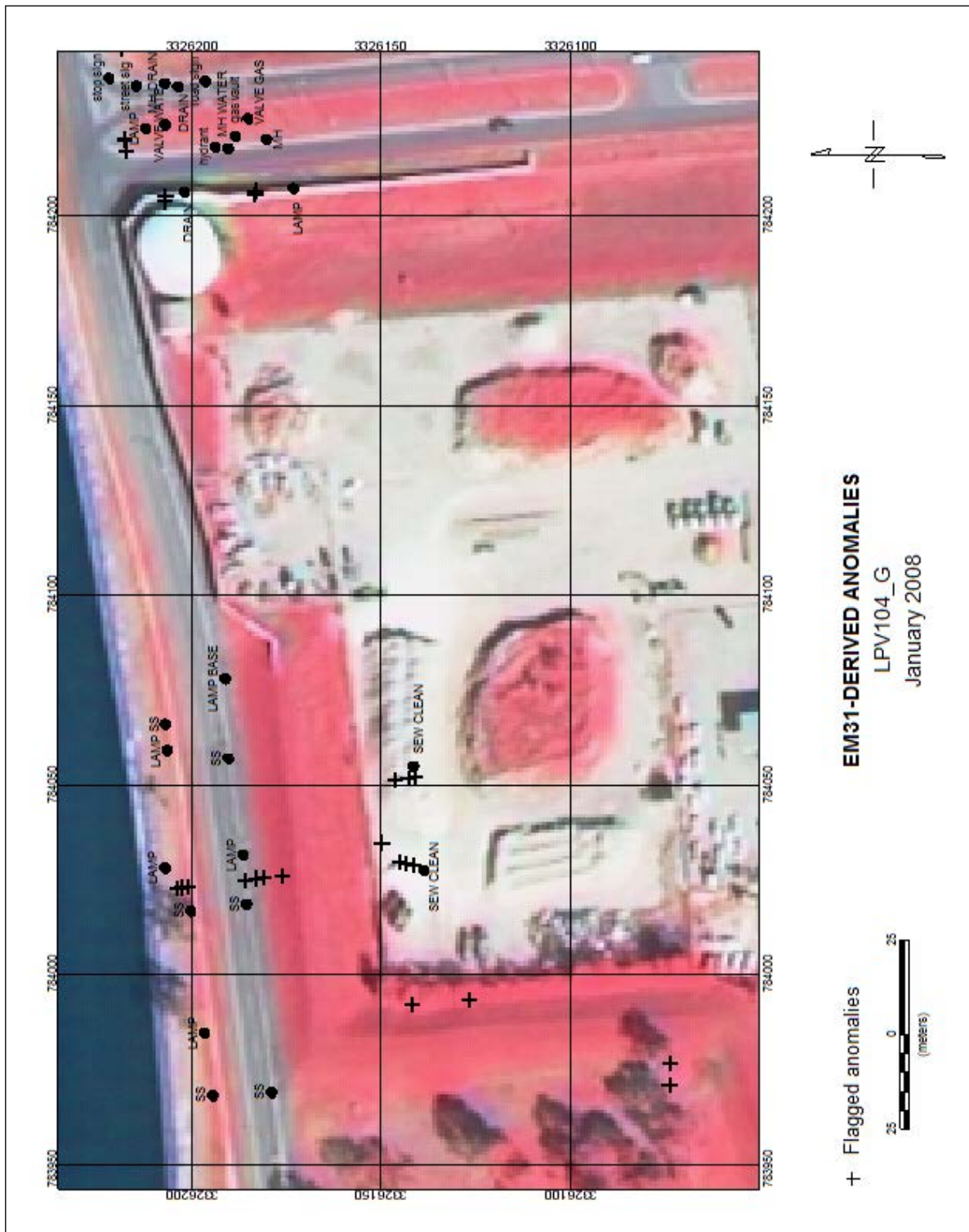


Figure 37. Anomalies interpreted from EM31 survey, LPV104_H.

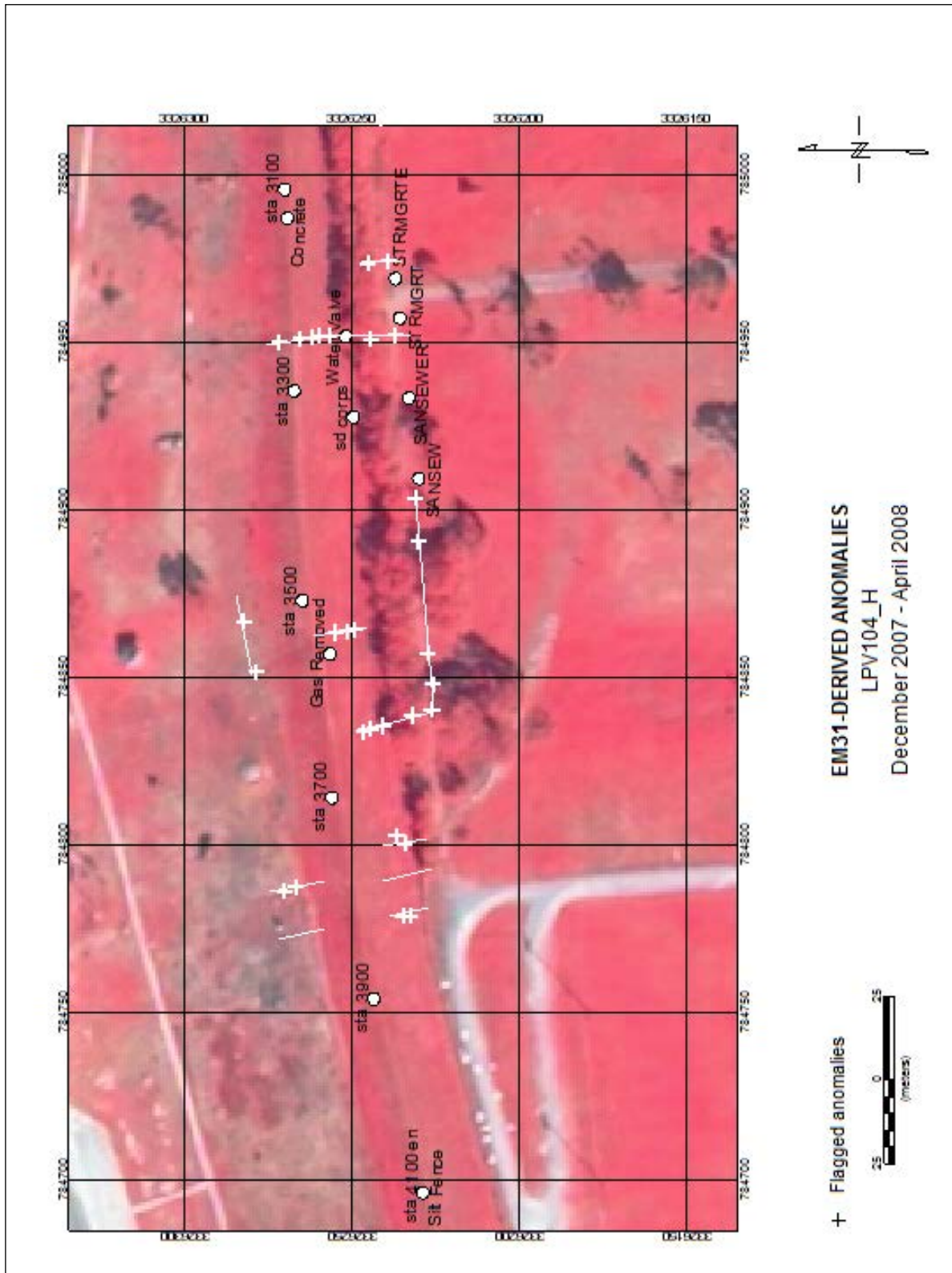


Figure 38. Anomalies interpreted from EM31 survey, LPV104_I.

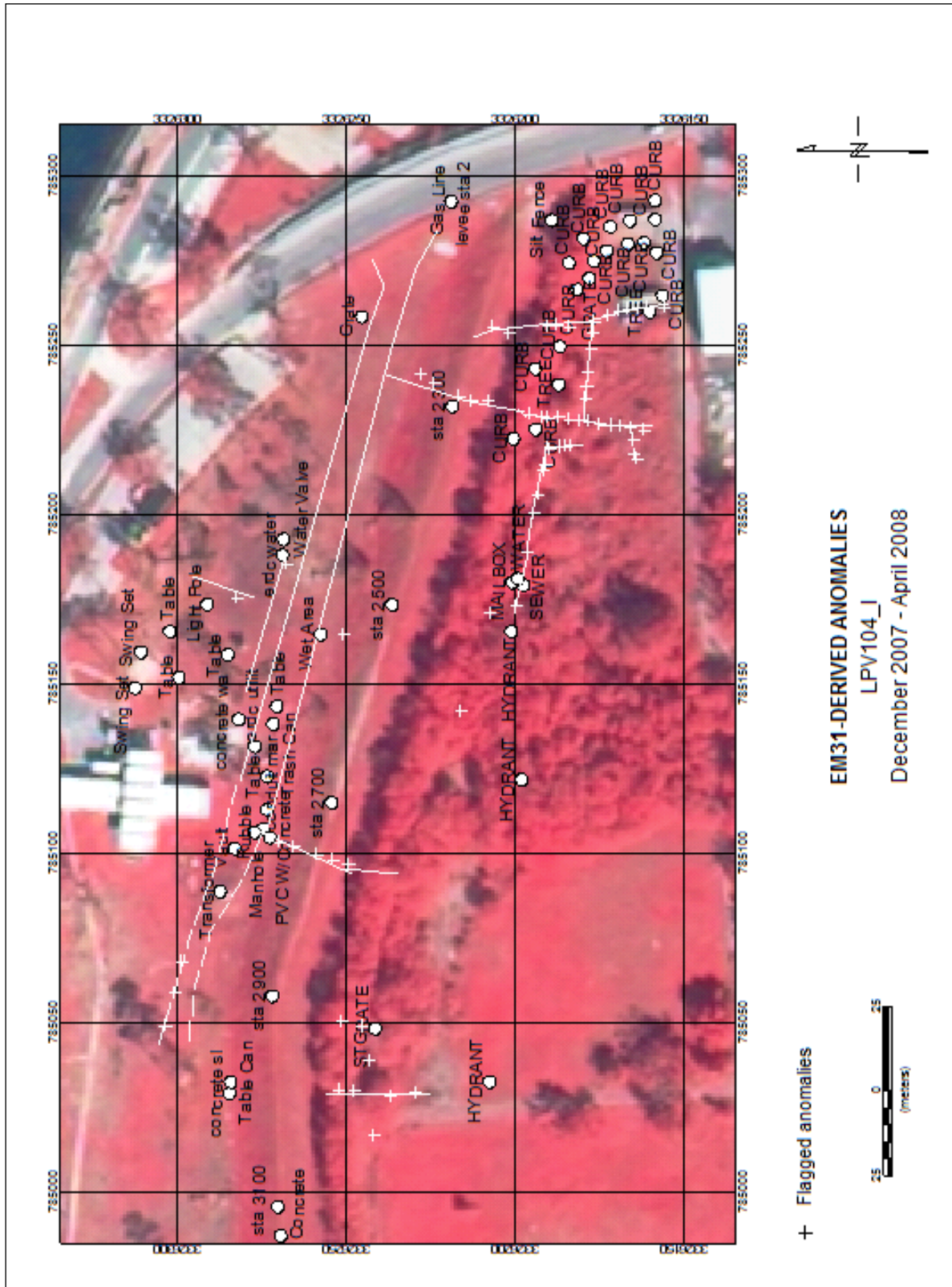


Figure 39. Anomalies interpreted from EM31 survey, LPV104_J.

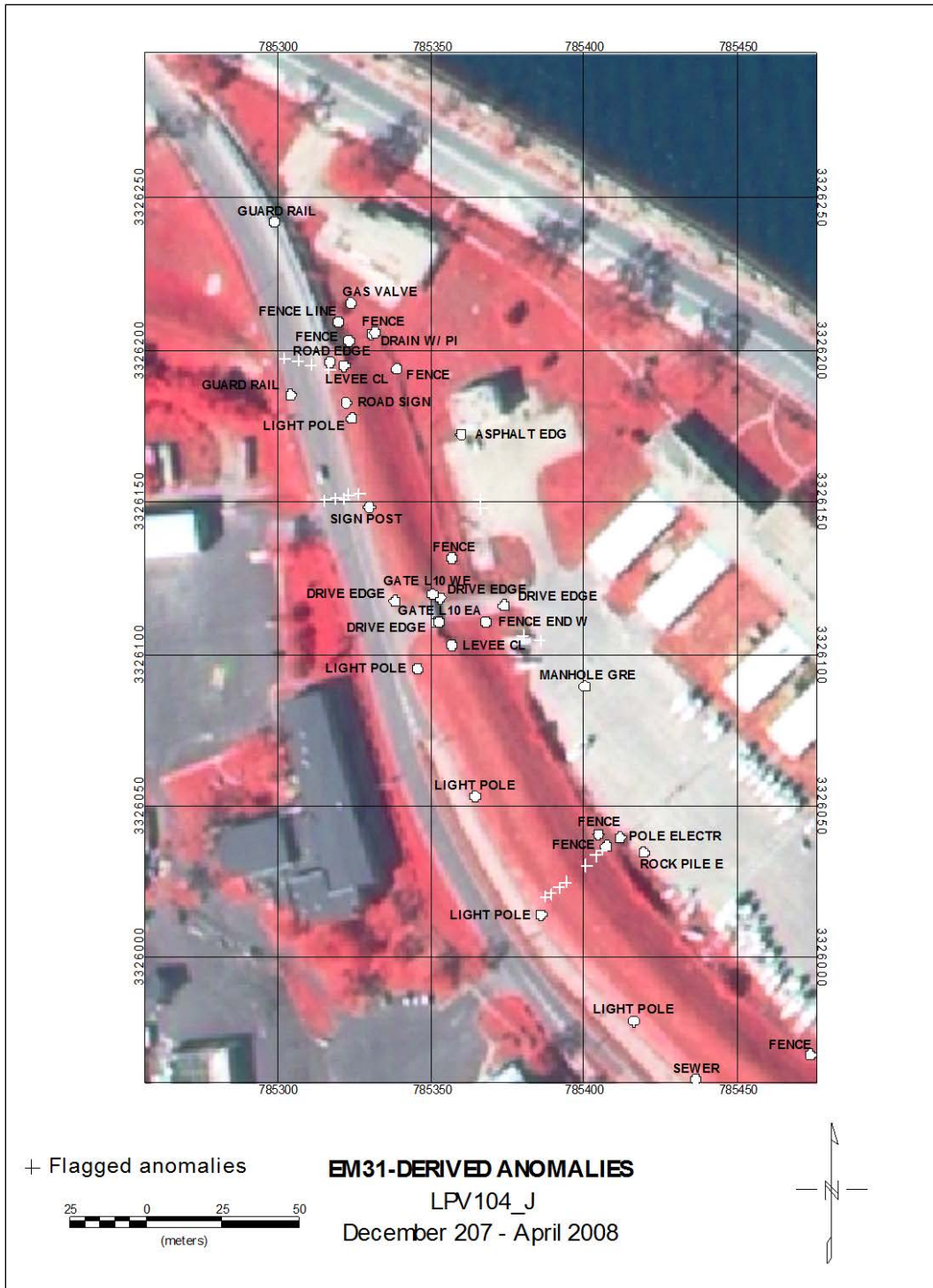
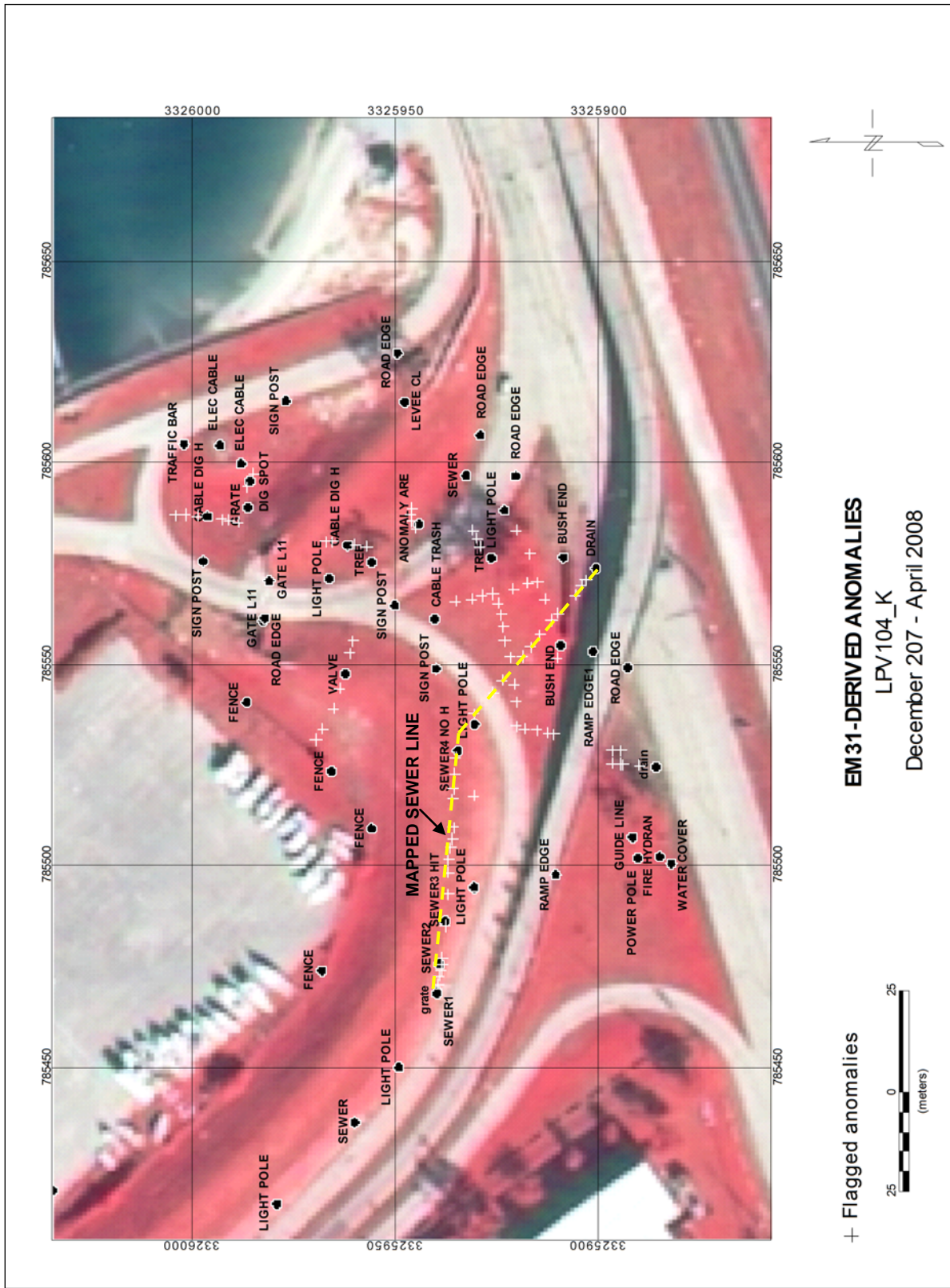


Figure 40. Anomalies interpreted from EM31 survey, LPV104_K.



EM-31-DERIVED ANOMALIES
LPV104_K
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+ Flagged anomalies

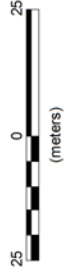


Figure 41. Excavating an EM31 anomaly marked with yellow flags, LPV104_K. UTM Coordinate (785579.6, 3325961.8).



Figure 42. Cable located with the EM31 at bottom of excavation, LPV104_K. UTM Coordinate (785579.6, 3325961.8).



It was decided to use the Radiodetection RD4000 cable and pipe locator system to track the sewer pipe. A radio transmitter was attached to the end of a flexible fiberglass rod, placed into the storm sewer, and pushed at 1- to 2-m intervals (Figure 43). An operator on the ground surface used a radio receiver to track the position of the radio transmitter as it was pushed through the sewer. The locations were marked with flags, thus indicating the alignment of the sewer line (Figure 44). The radio transmitter could not be pushed beyond a distance of approximately 65 m (210 ft), and it was presumed that it had encountered a bend that it could not negotiate.

Since the transmitter would not go any farther through the sewer line, it was decided to feed it into a drain located at the north edge of Leon C. Simon Drive at UTM coordinate (785524.6, 3325885). This drain had a pipe feeding into it that appeared to be coming from a northwesterly direction and could possibly be connected to the sewer line being investigated. The transmitter was pushed through the pipe to approximately 50 m (165 ft) or refusal, and its path was mapped. The point of refusal corresponded with that of the previous sewer line. It is presumed that the two lines are connected and that the refusal point is caused by a bend in the line. The mapped sewer line is shown in Figure 40.

Figure 43. Radio transmitter placed in storm sewer, UTM coordinates (785524.6, 3325885.6), LPV104_K.



Figure 44. Radio transmitter in storm sewer being tracked on the ground surface. Yellow flags indicate storm sewer track.



LPV106

In February 2008, HPO personnel requested that ERDC investigate the location of six seepage areas located along Hayne Boulevard in LPV106 (Figure 45). It was suspected that wells located in the toe of the levee were the source of the seepage. Figure 46 shows one of the seepage sites near the intersection of Hayne Boulevard and Pebble Drive. A magnetometer and an EM61 were used to determine the location of metallic objects, such as well covers or pipes, associated with the seepage site. The area of peak metallic response within each seepage area was marked with a white pin flag and spray paint. The coordinates of the anomalous areas at each seepage location are presented in Table 1. The anomaly locations, as referenced to the two nearest expansion joints and road curb (Figure 47), are presented in Table 2.

No signatures indicative of a buried metallic object were observed at the floodgate site, and a very weak metallic signature was indicated at the 14804 Hayne site.

Figure 45. Location of the six seepage areas investigated along Hayne Boulevard, LPV106.

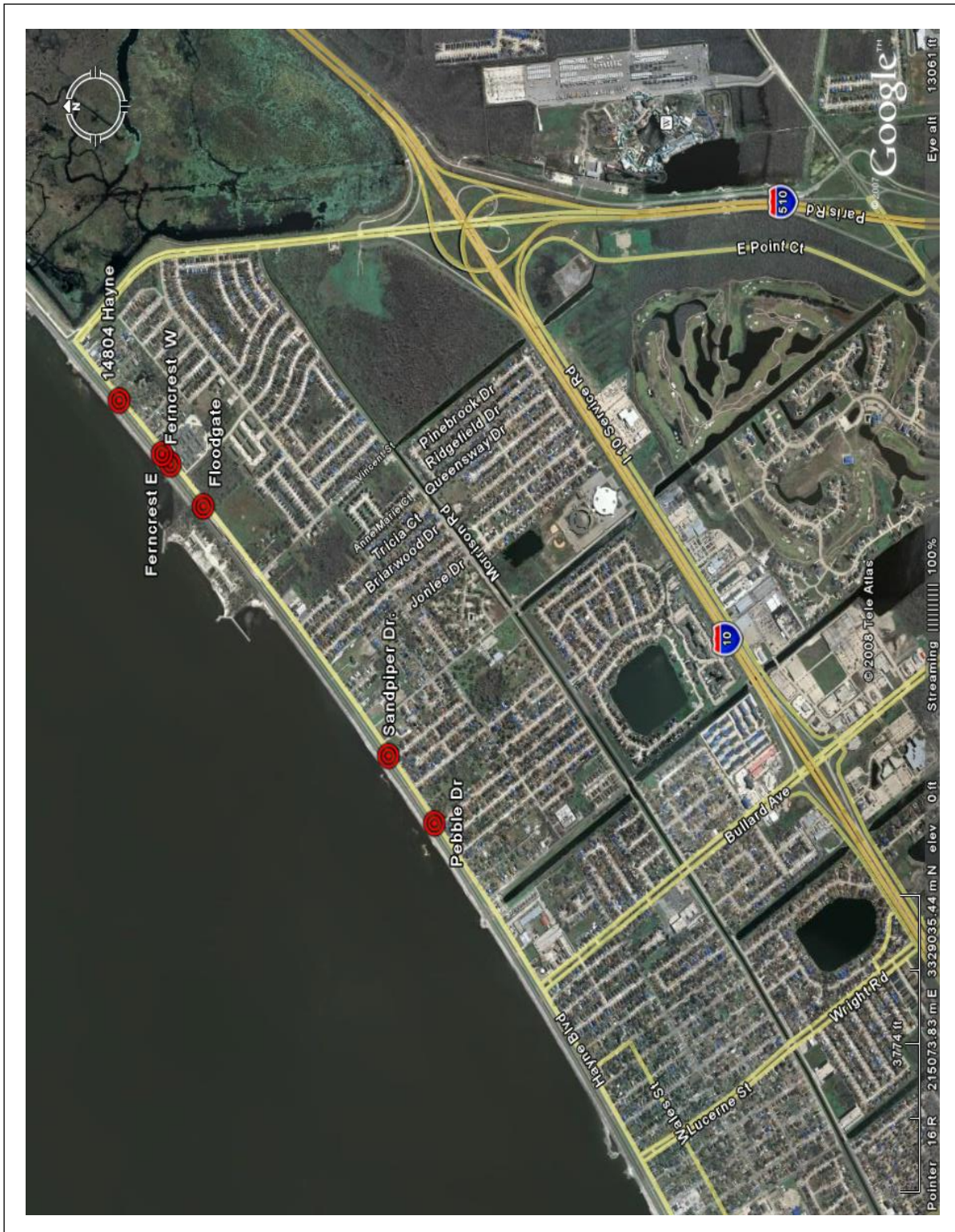


Figure 46. Seepage area, indicated by the white flag on the toe of the levee, located near the intersection of Hayne Boulevard and Pebble Drive.



Figure 47. Key for Table 2.

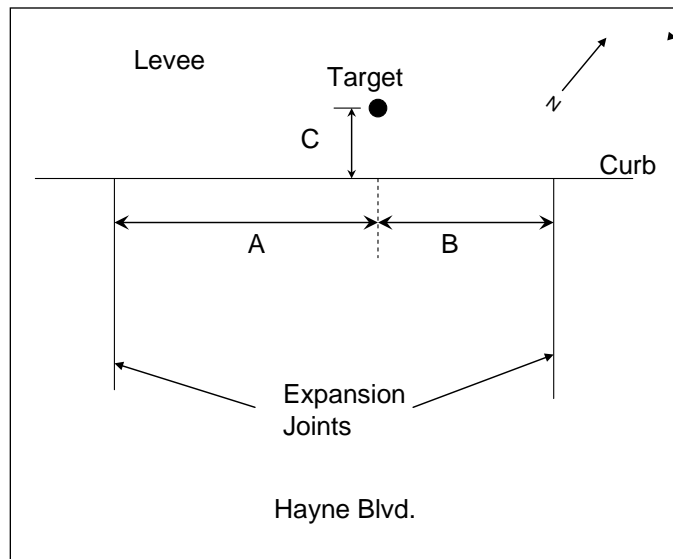


Table 1. Coordinates of seepage locations along Hayne Boulevard, LPV-106.

Site	UTM (Zone 16)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
Pebble Dr.	214295.6	3329268.2	89 57 48.34839	30 03 40.26061	3714175.1	570332.9
Sandpiper Dr.	214562.7	3329463.5	89 57 38.57461	30 03 46.82169	3715025.9	571005.9
Floodgate	215552	3330253	89 57 02.43449	30 04 13.26725	3718169.1	573715.4
Ferncrest West	215719.4	3330393.5	89 56 56.32531	30 04 17.96602	3718700.1	574196.5
Ferncrest East	215759.5	3330428.9	89 56 54.86354	30 04 19.14815	3718827.1	574317.4
14804 Hayne Blvd	215972.5	3330612.9	89 56 47.09496	30 04 25.29636	3719502.1	574946.7

Note: NAD83.

Table 2. Seepage locations along Hayne Boulevard, LPV-106, referenced to nearest expansion joints and road curb.

Location	A ^a , m	B ^a , m	C ^a , m
Pebble Drive	3.5	2.6	2.1
Sandpiper Drive	3.9	2.1	2.3
Floodgate	? (No metallic signature)	? (No metallic signature)	? (No metallic signature)
Ferncrest W	3.6	2.5	2.6
Ferncrest E	4.2	1.9	2.4
14804 Hayne Blvd	3.1 (Weak signal)	3.0 (Weak signal)	1.8 (Weak signal)

^a Note: Refer to Figure 47 for definition of A, B, and C.

4 Summary and Conclusions

A geophysical study was performed to determine the locations of anomalies presumed to be associated with buried utilities beneath or in the vicinity of the levees on the south shore of Lake Pontchartrain approximately 8 km (5 miles) north of downtown New Orleans, LA. There was concern that utilities located beneath or buried near the toe of the levees could act as a water conduit during flooding events. If a water-filled utility fails, it is possible that it may cause the levee to fail either by piping material from within the levee or cause slope stability problems. It is also possible that buried utilities can act as potential seepage paths through the levee during high-water events. In this case, the buried pipe would not have to “fail” to cause a problem. The utilities needed to be accurately located so that they can be rerouted, removed, or abandoned and grouted-in.

Electromagnetic, total field magnetic and ground penetrating radar systems were assessed to determine the best method for detecting the buried utilities in this area. The Geonics EM31 electromagnetic induction instrument was considered the most effective for detecting the utilities. EM31 anomalies, presumed to be the locations of buried utilities, were mapped and their coordinates tabulated for further interrogation.

Appendix A: Tabulated Coordinates of Flagged Anomalies and Utility Locations, LPV101, LPV102, LPV103, and LPV104

Table A1. LPV101 flagged anomalies and utility locations.

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
BLDG	778411.2	3324944.7	90 06 47.76227	30 01 26.03381	3666923.3	556238.7
BLDG	778411.2	3324949.0	90 06 47.75616	30 01 26.17374	3666923.7	556252.9
BLDG	778417.4	3324944.6	90 06 47.52960	30 01 26.02594	3666943.8	556238.1
BLDG	778418.2	3324949.6	90 06 47.49552	30 01 26.18870	3666946.6	556254.6
BLDG	778442.3	3324852.3	90 06 46.68799	30 01 23.00962	3667021.0	555934.3
BLDG	778442.4	3324847.3	90 06 46.69178	30 01 22.84918	3667020.8	555918.0
BLDG	778444.5	3324981.3	90 06 46.48742	30 01 27.19583	3667034.1	556357.3
BLDG	778445.1	3324986.3	90 06 46.45898	30 01 27.35576	3667036.5	556373.5
BLDG	778446.8	3324847.5	90 06 46.52626	30 01 22.84964	3667035.4	555918.2
BLDG	778447.4	3324852.8	90 06 46.50013	30 01 23.02248	3667037.5	555935.7
BLDG	778449.5	3324980.8	90 06 46.29996	30 01 27.17564	3667050.6	556355.4
BLDG	778449.5	3324985.9	90 06 46.29445	30 01 27.34101	3667050.9	556372.1
CABLES	778427.2	3324961.7	90 06 47.14762	30 01 26.57110	3666976.8	556293.6
DRAIN	778403.3	3324771.1	90 06 48.21975	30 01 20.40843	3666889.2	555670.1
ELEC CONDUI	778423.8	3324715.7	90 06 47.50794	30 01 18.59396	3666953.7	555487.5
FLAG	777829.4	3324680.7	90 07 09.70409	30 01 17.94274	3665003.3	555400.9
FLAG	777829.6	3324678.5	90 07 09.69721	30 01 17.87203	3665004.0	555393.8
FLAG	777831.1	3324675.4	90 07 09.64530	30 01 17.77070	3665008.7	555383.6
FLAG	778409.6	3324738.4	90 06 48.01474	30 01 19.34012	3666908.3	555562.3
FLAG	778410.0	3324690.4	90 06 48.04606	30 01 17.78469	3666907.2	555405.2
FLAG	778415.2	3324986.8	90 06 47.57245	30 01 27.39715	3666938.5	556376.6
FLAG	778415.7	3325007.0	90 06 47.53375	30 01 28.05228	3666941.2	556442.8
FLAG	778416.7	3324961.7	90 06 47.54248	30 01 26.58052	3666942.1	556294.2
FLAG	778418.8	3324986.9	90 06 47.43880	30 01 27.39864	3666950.3	556376.9
FLAG	778419.6	3325007.7	90 06 47.39015	30 01 28.07017	3666953.8	556444.8
FLAG	778420.3	3324690.2	90 06 47.66221	30 01 17.76828	3666941.0	555403.9
FLAG	778420.7	3324695.0	90 06 47.64357	30 01 17.92320	3666942.5	555419.6
FLAG	778421.0	3324784.5	90 06 47.54728	30 01 20.82750	3666947.8	555713.0
FLAG	778421.2	3324962.0	90 06 47.37216	30 01 26.58668	3666957.0	556294.9
FLAG	778421.3	3324701.2	90 06 47.61429	30 01 18.12622	3666944.8	555440.1
FLAG	778422.3	3324830.4	90 06 47.45572	30 01 22.31628	3666954.3	555863.5
FLAG	778422.6	3324830.5	90 06 47.44579	30 01 22.31901	3666955.1	555863.8

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	778422.9	3325006.4	90 06 47.26790	30 01 28.02807	3666964.6	556440.6
FLAG	778423.3	3324909.3	90 06 47.34444	30 01 24.87645	3666961.3	556122.2
FLAG	778424.6	3324961.9	90 06 47.24537	30 01 26.58036	3666968.2	556294.4
FLAG	778425.0	3324830.2	90 06 47.35322	30 01 22.30630	3666963.3	555862.6
FLAG	778425.2	3324830.2	90 06 47.34664	30 01 22.30680	3666963.9	555862.6
FLAG	778426.1	3324909.0	90 06 47.23948	30 01 24.86379	3666970.5	556121.0
FLAG	778426.8	3324783.9	90 06 47.33306	30 01 20.80491	3666966.7	555710.9
FLAG	778428.2	3324830.8	90 06 47.23399	30 01 22.32498	3666973.7	555864.6
FLAG	778428.4	3324830.6	90 06 47.22825	30 01 22.31732	3666974.3	555863.8
FLAG	778428.7	3324978.9	90 06 47.07896	30 01 27.12853	3666982.2	556349.9
FLAG	778429.2	3324961.9	90 06 47.07431	30 01 26.57735	3666983.2	556294.3
FLAG	778429.2	3324981.5	90 06 47.05515	30 01 27.21498	3666984.2	556358.7
FLAG	778429.4	3324970.9	90 06 47.05798	30 01 26.87047	3666984.3	556323.9
FLAG	778429.6	3324909.1	90 06 47.10850	30 01 24.86315	3666982.0	556121.1
FLAG	778429.6	3324972.9	90 06 47.05036	30 01 26.93514	3666984.9	556330.4
FLAG	778430.5	3324784.8	90 06 47.19287	30 01 20.83115	3666979.0	555713.7
FLAG	778431.3	3325027.3	90 06 46.93379	30 01 28.69941	3666993.3	556508.8
FLAG	778431.4	3325020.1	90 06 46.93700	30 01 28.46405	3666993.2	556485.0
FLAG	778432.0	3324728.0	90 06 47.18963	30 01 18.98570	3666981.2	555527.3
FLAG	778432.0	3324983.2	90 06 46.94978	30 01 27.26783	3666993.4	556364.1
FLAG	778432.3	3324990.5	90 06 46.93061	30 01 27.50300	3666994.8	556387.9
FLAG	778432.4	3324961.7	90 06 46.95514	30 01 26.56700	3666993.7	556293.3
FLAG	778432.5	3325011.1	90 06 46.90422	30 01 28.17135	3666996.4	556455.4
FLAG	778432.8	3324908.7	90 06 46.99171	30 01 24.84916	3666992.3	556119.8
FLAG	778433.4	3325003.0	90 06 46.87962	30 01 27.90805	3666998.9	556428.9
FLAG	778433.8	3324831.6	90 06 47.02541	30 01 22.34488	3666992.1	555866.8
FLAG	778433.9	3324729.0	90 06 47.11959	30 01 19.01686	3666987.4	555530.5
FLAG	778433.9	3324784.3	90 06 47.06788	30 01 20.81067	3666990.0	555711.8
FLAG	778433.9	3324831.5	90 06 47.02310	30 01 22.34340	3666992.3	555866.6
FLAG	778434.7	3324961.2	90 06 46.87011	30 01 26.55033	3667001.2	556291.7
FLAG	778436.4	3324728.0	90 06 47.02691	30 01 18.98100	3666995.5	555527.0
FLAG	778436.9	3324732.9	90 06 47.00399	30 01 19.13968	3666997.4	555543.0
FLAG	778438.3	3324832.4	90 06 46.85615	30 01 22.36863	3667006.9	555869.3
FLAG	778438.5	3324832.2	90 06 46.85068	30 01 22.36163	3667007.4	555868.6
FLAG	778438.5	3324908.7	90 06 46.77711	30 01 24.84363	3667011.2	556119.4
FLAG	778438.8	3324954.3	90 06 46.72296	30 01 26.32252	3667014.4	556268.9
FLAG	778438.8	3324961.0	90 06 46.71594	30 01 26.54016	3667014.7	556290.9
FLAG	778440.8	3324784.3	90 06 46.80776	30 01 20.80399	3667012.8	555711.3
FLAG	778441.1	3324908.4	90 06 46.68225	30 01 24.83119	3667019.5	556118.3
FLAG	778441.5	3324982.9	90 06 46.59445	30 01 27.25026	3667024.7	556362.7

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	778443.1	3324833.0	90 06 46.67717	30 01 22.38402	3667022.6	555871.1
FLAG	778443.2	3324954.3	90 06 46.56093	30 01 26.32078	3667028.6	556268.8
FLAG	778443.3	3324833.0	90 06 46.66992	30 01 22.38214	3667023.3	555870.9
FLAG	778445.3	3324907.6	90 06 46.52566	30 01 24.80405	3667033.3	556115.7
FLAG	778445.6	3324833.1	90 06 46.58335	30 01 22.38472	3667030.9	555871.2
FLAG	778445.8	3324833.1	90 06 46.57751	30 01 22.38563	3667031.4	555871.3
FLAG	778448.3	3324954.2	90 06 46.36832	30 01 26.31194	3667045.6	556268.1
FLAG	778450.4	3324987.4	90 06 46.25903	30 01 27.38900	3667054.0	556377.0
FLAG	778450.8	3324907.0	90 06 46.32181	30 01 24.77899	3667051.3	556113.3
FLAG	778450.9	3324954.2	90 06 46.27443	30 01 26.31004	3667053.8	556268.0
FLAG	778453.3	3324954.0	90 06 46.18462	30 01 26.30099	3667061.7	556267.2
FLAG	778453.6	3324987.0	90 06 46.14285	30 01 27.37333	3667064.2	556375.5
FLAG	778455.1	3324987.2	90 06 46.08350	30 01 27.37826	3667069.4	556376.1
HYDRANT	777827.7	3324682.7	90 07 09.76559	30 01 18.01048	3664997.8	555407.7
LAMP	778444.6	3324789.5	90 06 46.66173	30 01 20.96984	3667025.5	555728.2
LAMP	778451.1	3324869.8	90 06 46.34588	30 01 23.57065	3667050.5	555991.2
LAMP BASE	778401.7	3324702.6	90 06 48.34413	30 01 18.18621	3666880.6	555445.5
LAMP BASE	778403.1	3324685.2	90 06 48.30719	30 01 17.62150	3666884.5	555388.5
MH DRAIN	778442.8	3324732.1	90 06 46.78286	30 01 19.10970	3667016.9	555540.2
MH DRAIN	778443.2	3324738.5	90 06 46.76291	30 01 19.31793	3667018.4	555561.3
MH DRAIN	778446.3	3324779.9	90 06 46.60697	30 01 20.65805	3667030.7	555696.8
MH DRAIN	778449.2	3324821.7	90 06 46.45917	30 01 22.01339	3667042.2	555833.8
MH DRAIN	778456.2	3324911.6	90 06 46.11647	30 01 24.92374	3667069.2	556128.1
MH NOPSI	778404.2	3324759.1	90 06 48.19736	30 01 20.01754	3666891.5	555630.6
MH NOPSI	778437.3	3324703.4	90 06 47.01431	30 01 18.18415	3666997.5	555446.5
MH NOPSI	778440.3	3324741.1	90 06 46.87004	30 01 19.40496	3667008.9	555570.0
MH NOPSI	778447.5	3324834.4	90 06 46.51271	30 01 22.42642	3667037.0	555875.5
MH NOPSI	778449.5	3324850.0	90 06 46.42314	30 01 22.93030	3667044.4	555926.5
MH NOPSI	778453.1	3324904.3	90 06 46.23571	30 01 24.68970	3667059.0	556104.4
MH SEWER	777817.4	3324694.7	90 07 10.13829	30 01 18.40871	3664964.6	555447.6
MH SEWER	777817.4	3324696.0	90 07 10.13839	30 01 18.45183	3664964.6	555452.0
MH SEWER	778400.3	3324737.2	90 06 48.36389	30 01 19.31051	3666877.7	555559.0
MH SEWER	778416.8	3324736.2	90 06 47.74942	30 01 19.26426	3666931.7	555554.9
MH WATER	777829.5	3324679.3	90 07 09.69953	30 01 17.89777	3665003.8	555396.4
NOPSI	778460.1	3325005.3	90 06 45.88216	30 01 27.96141	3667086.5	556435.2
POWER POLE	777832.2	3324674.3	90 07 09.60619	30 01 17.73351	3665012.1	555379.9
POWER POLE	777836.0	3324687.1	90 07 09.44969	30 01 18.14557	3665025.5	555421.7
SS INLET	778439.2	3324708.6	90 06 46.93877	30 01 18.35211	3667004.0	555463.6
SS INLET	778441.9	3324744.5	90 06 46.80405	30 01 19.51400	3667014.6	555581.0
SS INLET	778445.8	3324794.0	90 06 46.61220	30 01 21.11447	3667029.7	555742.9

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
SS INLET	778449.9	3324845.2	90 06 46.41181	30 01 22.77427	3667045.5	555910.7
SS INLET	778453.6	3324895.4	90 06 46.22582	30 01 24.40052	3667060.1	556075.2
VALVE BOX	778403.7	3324700.5	90 06 48.27074	30 01 18.11577	3666887.1	555438.4
VAULT	778416.8	3324784.7	90 06 47.70357	30 01 20.83658	3666934.1	555713.8
VAULT COX	778447.5	3324832.2	90 06 46.51350	30 01 22.35556	3667037.0	555868.3

Note: NAD83.

Table A2. LPV102 flagged anomalies and utility locations.

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
BLDG	778625.2	3325211.1	90 06 39.53127	30 01 34.50301	3667637.7	557101.9
BLDG	778627.4	3325206.2	90 06 39.45269	30 01 34.34336	3667644.8	557085.9
BLDG	778630.7	3325212.8	90 06 39.32349	30 01 34.55396	3667655.9	557107.3
BLDG	778632.3	3325208.0	90 06 39.26878	30 01 34.39617	3667660.9	557091.4
BLDG	778791.4	3325231.2	90 06 33.31352	30 01 35.02001	3668183.7	557160.0
BLDG	778791.7	3325227.5	90 06 33.30672	30 01 34.89836	3668184.4	557147.7
BLDG	778796.4	3325232.4	90 06 33.12650	30 01 35.05281	3668200.1	557163.5
BLDG	778797.2	3325227.4	90 06 33.10332	30 01 34.89100	3668202.3	557147.1
BLDG	778923.9	3325236.3	90 06 28.36832	30 01 35.07511	3668618.3	557170.2
BLDG	778924.3	3325241.3	90 06 28.34893	30 01 35.23644	3668619.8	557186.5
BLDG	778929.6	3325236.6	90 06 28.15828	30 01 35.08052	3668636.7	557170.9
BLDG	778930.4	3325239.7	90 06 28.12564	30 01 35.17909	3668639.5	557180.9
BLDG	780015.6	3325271.0	90 05 47.63009	30 01 35.30582	3672198.8	557232.0
BLDG	780016.6	3325277.3	90 05 47.58579	30 01 35.50715	3672202.5	557252.3
BLDG	780021.6	3325271.1	90 05 47.40446	30 01 35.30230	3672218.6	557231.8
BLDG	780022.2	3325276.7	90 05 47.37734	30 01 35.48511	3672220.8	557250.3
BLDG	780024.0	3325327.4	90 05 47.26489	30 01 37.12597	3672228.9	557416.2
BLDG	780025.2	3325320.5	90 05 47.22517	30 01 36.90292	3672232.6	557393.7
BLDG	780029.4	3325328.6	90 05 47.06155	30 01 37.16262	3672246.7	557420.1
BLDG	780030.8	3325323.1	90 05 47.01453	30 01 36.98138	3672251.1	557401.8
DRAIN	778428.9	3325111.2	90 06 46.94693	30 01 31.42173	3666989.2	556783.7
DRAIN	778437.5	3325120.8	90 06 46.61442	30 01 31.72745	3667018.1	556814.9
DRAIN	778467.7	3325147.8	90 06 45.46417	30 01 32.57807	3667118.3	556901.9
DRAIN	778471.0	3325152.5	90 06 45.33797	30 01 32.72890	3667129.2	556917.3
DRAIN	778574.9	3325217.2	90 06 41.40053	30 01 34.74171	3667473.1	557124.3
DRAIN	778646.7	3325243.3	90 06 38.70027	30 01 35.52981	3667709.6	557206.4
DRAIN	779722.1	3325108.1	90 05 58.72796	30 01 30.26137	3671228.8	556711.9
DRAIN	779755.7	3325137.9	90 05 57.44741	30 01 31.19844	3671340.4	556807.8
DRAIN	779791.1	3325168.1	90 05 56.09970	30 01 32.14916	3671457.8	556905.1

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
DRAIN	779811.5	3325191.2	90 05 55.31663	30 01 32.88308	3671525.8	556980.0
DRAIN	779824.7	3325211.9	90 05 54.80541	30 01 33.54537	3671570.0	557047.3
FLAG	778428.9	3325103.8	90 06 46.95124	30 01 31.18062	3666989.1	556759.4
FLAG	778433.5	3325107.6	90 06 46.77860	30 01 31.30131	3667004.1	556771.7
FLAG	778436.9	3325110.0	90 06 46.64865	30 01 31.37722	3667015.5	556779.5
FLAG	778580.1	3325213.0	90 06 41.21169	30 01 34.60301	3667489.9	557110.5
FLAG	778631.1	3325204.4	90 06 39.31905	30 01 34.27993	3667656.6	557079.6
FLAG	778631.7	3325203.7	90 06 39.29433	30 01 34.25880	3667658.8	557077.5
FLAG	778633.2	3325203.2	90 06 39.24163	30 01 34.24154	3667663.4	557075.8
FLAG	778636.0	3325202.5	90 06 39.13706	30 01 34.21512	3667672.7	557073.2
FLAG	778639.0	3325201.6	90 06 39.02759	30 01 34.18171	3667682.3	557069.9
FLAG	778644.5	3325199.3	90 06 38.82436	30 01 34.10539	3667700.3	557062.4
FLAG	778648.6	3325196.6	90 06 38.67421	30 01 34.01209	3667713.6	557053.1
FLAG	778655.0	3325194.2	90 06 38.43479	30 01 33.92917	3667734.7	557045.0
FLAG	778661.0	3325192.7	90 06 38.21382	30 01 33.87561	3667754.2	557039.8
FLAG	778758.2	3325266.1	90 06 34.52189	30 01 36.17707	3668076.2	557275.7
FLAG	778759.2	3325262.3	90 06 34.48640	30 01 36.05271	3668079.5	557263.2
FLAG	778759.8	3325257.7	90 06 34.46862	30 01 35.90313	3668081.2	557248.1
FLAG	778759.8	3325257.8	90 06 34.46864	30 01 35.90875	3668081.2	557248.7
FLAG	778762.3	3325244.9	90 06 34.38887	30 01 35.48703	3668088.6	557206.1
FLAG	778762.8	3325239.2	90 06 34.37252	30 01 35.30235	3668090.3	557187.5
FLAG	778764.5	3325233.4	90 06 34.31587	30 01 35.11367	3668095.5	557168.5
FLAG	778765.4	3325230.6	90 06 34.28638	30 01 35.01912	3668098.2	557159.0
FLAG	778766.2	3325226.5	90 06 34.25802	30 01 34.88687	3668100.8	557145.6
FLAG	778767.1	3325222.6	90 06 34.22864	30 01 34.75905	3668103.5	557132.8
FLAG	778772.8	3325246.3	90 06 33.99426	30 01 35.52433	3668123.3	557210.3
FLAG	778774.1	3325243.4	90 06 33.94888	30 01 35.42956	3668127.4	557200.8
FLAG	778775.4	3325238.8	90 06 33.90427	30 01 35.27864	3668131.5	557185.6
FLAG	778776.9	3325234.6	90 06 33.85459	30 01 35.14200	3668136.0	557171.8
FLAG	778777.9	3325228.6	90 06 33.82031	30 01 34.94508	3668139.2	557151.9
FLAG	778777.9	3325230.8	90 06 33.81981	30 01 35.01617	3668139.2	557159.1
FLAG	778806.3	3325235.4	90 06 32.75670	30 01 35.14396	3668232.5	557173.0
FLAG	778807.3	3325240.2	90 06 32.71396	30 01 35.29731	3668236.1	557188.6
FLAG	778807.3	3325244.9	90 06 32.70974	30 01 35.45160	3668236.3	557204.1
FLAG	778808.0	3325249.5	90 06 32.67890	30 01 35.60031	3668238.8	557219.2
FLAG	778808.4	3325253.5	90 06 32.65925	30 01 35.72708	3668240.4	557232.0
FLAG	778808.8	3325256.8	90 06 32.64215	30 01 35.83525	3668241.8	557243.0
FLAG	778809.4	3325261.1	90 06 32.61497	30 01 35.97442	3668244.0	557257.0
FLAG	778810.2	3325272.3	90 06 32.57470	30 01 36.33711	3668247.2	557293.7
FLAG	778810.8	3325275.1	90 06 32.55163	30 01 36.42761	3668249.1	557302.9

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	778811.0	3325280.9	90 06 32.53918	30 01 36.61471	3668250.0	557321.8
FLAG	778819.3	3325289.8	90 06 32.21968	30 01 36.89593	3668277.8	557350.5
FLAG	778941.2	3325236.9	90 06 27.72255	30 01 35.07931	3668675.0	557171.2
FLAG	778946.2	3325236.9	90 06 27.53797	30 01 35.07804	3668691.3	557171.3
FLAG	778951.9	3325236.3	90 06 27.32462	30 01 35.05348	3668710.0	557169.0
FLAG	778957.6	3325235.9	90 06 27.11357	30 01 35.03348	3668728.6	557167.2
FLAG	778963.1	3325236.2	90 06 26.90882	30 01 35.03907	3668746.6	557167.9
FLAG	778968.8	3325236.4	90 06 26.69483	30 01 35.04070	3668765.4	557168.3
FLAG	778974.9	3325236.3	90 06 26.46722	30 01 35.03312	3668785.4	557167.7
FLAG	778982.7	3325224.2	90 06 26.18708	30 01 34.63546	3668810.5	557127.8
FLAG	778982.9	3325227.5	90 06 26.17751	30 01 34.74253	3668811.2	557138.7
FLAG	778983.4	3325231.1	90 06 26.15576	30 01 34.85685	3668813.0	557150.2
FLAG	779191.3	3325221.5	90 06 18.41468	30 01 34.37646	3669493.9	557109.0
FLAG	779201.8	3325219.5	90 06 18.02320	30 01 34.30216	3669528.4	557101.9
FLAG	779207.7	3325219.2	90 06 17.80207	30 01 34.28875	3669547.9	557100.7
FLAG	779217.0	3325219.6	90 06 17.45721	30 01 34.29207	3669578.2	557101.4
FLAG	779219.8	3325218.9	90 06 17.35213	30 01 34.26813	3669587.4	557099.0
FLAG	779226.7	3325218.8	90 06 17.09537	30 01 34.25839	3669610.0	557098.3
FLAG	779232.2	3325218.9	90 06 16.89148	30 01 34.25760	3669627.9	557098.4
FLAG	779236.6	3325217.5	90 06 16.72641	30 01 34.20795	3669642.5	557093.6
FLAG	779251.8	3325216.9	90 06 16.16210	30 01 34.17582	3669692.1	557090.8
FLAG	779269.0	3325216.1	90 06 15.52178	30 01 34.13548	3669748.5	557087.4
FLAG	779282.4	3325215.2	90 06 15.02151	30 01 34.09528	3669792.5	557083.8
FLAG	779422.6	3325243.7	90 06 09.76875	30 01 34.90484	3670253.3	557170.5
FLAG	779431.2	3325247.4	90 06 09.44368	30 01 35.01794	3670281.8	557182.2
FLAG	779431.4	3325247.2	90 06 09.43487	30 01 35.01151	3670282.5	557181.6
FLAG	779437.2	3325250.2	90 06 09.21581	30 01 35.10389	3670301.7	557191.1
FLAG	779437.5	3325249.9	90 06 09.20623	30 01 35.09472	3670302.5	557190.2
FLAG	779453.5	3325256.7	90 06 08.60152	30 01 35.30357	3670355.5	557211.9
FLAG	779453.5	3325257.0	90 06 08.60432	30 01 35.31243	3670355.2	557212.8
FLAG	779459.0	3325258.8	90 06 08.39729	30 01 35.36601	3670373.4	557218.4
FLAG	779459.1	3325258.6	90 06 08.39156	30 01 35.36017	3670373.9	557217.8
FLAG	779465.1	3325261.3	90 06 08.16660	30 01 35.44378	3670393.5	557226.5
FLAG	779465.1	3325261.3	90 06 08.16508	30 01 35.44197	3670393.7	557226.3
FLAG	779470.8	3325263.6	90 06 07.95001	30 01 35.51148	3670412.5	557233.5
FLAG	779471.0	3325263.3	90 06 07.94555	30 01 35.50330	3670412.9	557232.7
FLAG	779474.0	3325266.1	90 06 07.82989	30 01 35.59136	3670423.0	557241.7
FLAG	779474.1	3325265.7	90 06 07.82464	30 01 35.57690	3670423.5	557240.2
FLAG	779476.8	3325267.5	90 06 07.72339	30 01 35.63535	3670432.3	557246.2
FLAG	779477.0	3325266.9	90 06 07.71801	30 01 35.61393	3670432.8	557244.1

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	779479.8	3325268.2	90 06 07.61112	30 01 35.65317	3670442.1	557248.1
FLAG	779479.8	3325269.0	90 06 07.61003	30 01 35.67908	3670442.2	557250.8
FLAG	779483.2	3325271.0	90 06 07.48164	30 01 35.74193	3670453.4	557257.2
FLAG	779483.6	3325270.3	90 06 07.46778	30 01 35.71955	3670454.7	557255.0
FLAG	779488.9	3325274.5	90 06 07.26765	30 01 35.85131	3670472.1	557268.5
FLAG	779489.1	3325274.3	90 06 07.26022	30 01 35.84481	3670472.8	557267.8
FLAG	779522.5	3325296.4	90 06 05.99398	30 01 36.53262	3670583.3	557338.5
FLAG	779525.8	3325300.0	90 06 05.86469	30 01 36.64671	3670594.6	557350.2
FLAG	779528.9	3325301.6	90 06 05.74745	30 01 36.69832	3670604.8	557355.5
FLAG	779532.6	3325306.9	90 06 05.60615	30 01 36.86491	3670617.1	557372.4
FLAG	779534.3	3325308.8	90 06 05.54003	30 01 36.92654	3670622.8	557378.7
FLAG	779534.9	3325309.9	90 06 05.51718	30 01 36.96292	3670624.8	557382.4
FLAG	779536.2	3325314.7	90 06 05.46300	30 01 37.11786	3670629.4	557398.1
FLAG	779536.3	3325314.7	90 06 05.46148	30 01 37.11523	3670629.5	557397.9
FLAG	779539.7	3325320.8	90 06 05.32957	30 01 37.31294	3670640.9	557418.0
FLAG	779615.3	3325290.0	90 06 02.53634	30 01 36.25115	3670887.6	557313.3
FLAG	779689.4	3325058.0	90 05 59.99568	30 01 28.66030	3671119.1	556549.0
FLAG	779690.3	3325065.1	90 05 59.95367	30 01 28.88964	3671122.6	556572.2
FLAG	779691.4	3325071.6	90 05 59.90670	30 01 29.10087	3671126.5	556593.6
FLAG	779692.3	3325075.8	90 05 59.87031	30 01 29.23695	3671129.5	556607.3
FLAG	779797.5	3325317.1	90 05 55.71944	30 01 36.98038	3671485.9	557393.5
FLAG	779798.0	3325320.8	90 05 55.69802	30 01 37.09799	3671487.7	557405.4
FLAG	779798.1	3325324.5	90 05 55.69077	30 01 37.22026	3671488.2	557417.7
FLAG	779799.0	3325330.9	90 05 55.65122	30 01 37.42767	3671491.5	557438.7
FLAG	779799.4	3325339.8	90 05 55.62550	30 01 37.71610	3671493.4	557467.9
FLAG	779799.5	3325337.1	90 05 55.62472	30 01 37.62611	3671493.6	557458.8
FLAG	779800.0	3325342.2	90 05 55.60340	30 01 37.79051	3671495.3	557475.4
FLAG	779800.1	3325343.5	90 05 55.59613	30 01 37.83396	3671495.9	557479.8
FLAG	779800.3	3325360.6	90 05 55.57133	30 01 38.39026	3671497.4	557536.0
FLAG	779800.6	3325363.9	90 05 55.55756	30 01 38.49411	3671498.5	557546.5
FLAG	779801.0	3325367.7	90 05 55.54153	30 01 38.61902	3671499.8	557559.1
FLAG	779801.4	3325371.3	90 05 55.52094	30 01 38.73558	3671501.5	557570.9
FLAG	779802.5	3325385.6	90 05 55.46616	30 01 39.19778	3671505.8	557617.7
FLAG	779824.9	3325199.4	90 05 54.80741	30 01 33.13895	3671570.3	557006.3
FLAG	779834.6	3325205.0	90 05 54.44091	30 01 33.31125	3671602.3	557024.0
FLAG	779839.9	3325209.1	90 05 54.24078	30 01 33.43901	3671619.8	557037.1
FLAG	779848.7	3325216.1	90 05 53.90555	30 01 33.66002	3671649.0	557059.8
FLAG	779856.1	3325224.1	90 05 53.62014	30 01 33.91252	3671673.8	557085.6
FLAG	779865.5	3325233.1	90 05 53.26076	30 01 34.19923	3671705.1	557114.9
FLAG	779871.1	3325302.4	90 05 52.98742	30 01 36.44148	3671726.7	557341.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	779873.3	3325243.6	90 05 52.96148	30 01 34.53344	3671731.0	557148.9
FLAG	779877.5	3325314.7	90 05 52.73663	30 01 36.83737	3671748.3	557381.8
FLAG	779877.8	3325316.4	90 05 52.72615	30 01 36.89103	3671749.1	557387.3
FLAG	779877.8	3325322.2	90 05 52.71864	30 01 37.07951	3671749.6	557406.3
FLAG	779878.1	3325325.5	90 05 52.70391	30 01 37.18434	3671750.8	557416.9
FLAG	779879.2	3325252.6	90 05 52.73447	30 01 34.82024	3671750.7	557178.1
FLAG	779879.9	3325300.2	90 05 52.66282	30 01 36.36418	3671755.3	557334.1
FLAG	779882.8	3325260.2	90 05 52.59147	30 01 35.06420	3671763.0	557202.9
FLAG	779885.9	3325298.1	90 05 52.44206	30 01 36.29191	3671774.8	557327.0
FLAG	779886.4	3325269.5	90 05 52.44812	30 01 35.36103	3671775.2	557233.0
FLAG	779889.4	3325276.8	90 05 52.32965	30 01 35.59680	3671785.4	557256.9
FLAG	779890.7	3325369.1	90 05 52.19301	30 01 38.59037	3671794.2	557559.4
FLAG	779891.2	3325284.0	90 05 52.25677	30 01 35.82723	3671791.6	557280.3
FLAG	779891.8	3325362.2	90 05 52.15845	30 01 38.36659	3671797.4	557536.8
FLAG	779892.7	3325358.6	90 05 52.12993	30 01 38.24690	3671800.1	557524.8
FLAG	779892.9	3325288.7	90 05 52.18768	30 01 35.97925	3671797.5	557295.7
FLAG	779893.9	3325352.2	90 05 52.09003	30 01 38.03871	3671803.8	557503.8
FLAG	779894.7	3325348.7	90 05 52.06293	30 01 37.92393	3671806.3	557492.2
FLAG	779895.4	3325345.8	90 05 52.04242	30 01 37.83003	3671808.2	557482.8
FLAG	779953.8	3325122.4	90 05 50.07648	30 01 30.53397	3671989.0	556747.6
FLAG	779962.6	3325135.2	90 05 49.73537	30 01 30.94124	3672018.5	556789.1
FLAG	779967.3	3325140.4	90 05 49.55584	30 01 31.10725	3672034.1	556806.0
FLAG	779978.6	3325155.1	90 05 49.11918	30 01 31.57563	3672072.0	556853.8
FLAG	779986.5	3325164.5	90 05 48.81511	30 01 31.87320	3672098.4	556884.1
FLAG	779995.4	3325176.5	90 05 48.47309	30 01 32.25415	3672128.0	556922.9
FLAG	780010.5	3325217.5	90 05 47.86985	30 01 33.57271	3672179.6	557056.7
FLAG	780011.9	3325207.9	90 05 47.82683	30 01 33.25926	3672183.7	557025.1
FLAG	780012.3	3325428.1	90 05 47.60558	30 01 40.40359	3672195.4	557746.9
FLAG	780012.4	3325223.8	90 05 47.79400	30 01 33.77444	3672186.1	557077.1
FLAG	780014.1	3325232.7	90 05 47.72153	30 01 34.06271	3672192.1	557106.3
FLAG	780015.9	3325206.9	90 05 47.67786	30 01 33.22552	3672196.9	557021.8
FLAG	780016.5	3325426.1	90 05 47.45040	30 01 40.33718	3672209.1	557740.4
FLAG	780018.5	3325248.2	90 05 47.54314	30 01 34.56183	3672207.3	557156.9
FLAG	780020.4	3325430.0	90 05 47.30102	30 01 40.46063	3672222.1	557753.0
FLAG	780020.9	3325205.6	90 05 47.49325	30 01 33.17923	3672213.1	557017.3
FLAG	780020.9	3325424.9	90 05 47.28768	30 01 40.29241	3672223.5	557736.0
FLAG	780021.1	3325418.8	90 05 47.28543	30 01 40.09681	3672223.9	557716.2
FLAG	780022.0	3325258.7	90 05 47.40422	30 01 34.89996	3672219.1	557191.2
FLAG	780024.0	3325424.8	90 05 47.17244	30 01 40.28652	3672233.6	557735.5
FLAG	780024.5	3325402.3	90 05 47.17207	30 01 39.55723	3672234.4	557661.8

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	780025.5	3325423.1	90 05 47.11742	30 01 40.23109	3672238.5	557730.0
FLAG	780025.6	3325397.3	90 05 47.13758	30 01 39.39416	3672237.6	557645.4
FLAG	780026.5	3325204.6	90 05 47.28478	30 01 33.14099	3672231.5	557013.6
FLAG	780026.6	3325389.9	90 05 47.10596	30 01 39.15174	3672240.7	557621.0
FLAG	780026.8	3325281.1	90 05 47.20217	30 01 35.62277	3672236.1	557264.4
FLAG	780027.4	3325349.9	90 05 47.11533	30 01 37.85302	3672241.3	557489.8
FLAG	780028.0	3325272.2	90 05 47.16635	30 01 35.33380	3672239.5	557235.2
FLAG	780028.0	3325382.0	90 05 47.06237	30 01 38.89484	3672244.8	557595.0
FLAG	780028.0	3325382.4	90 05 47.06183	30 01 38.90960	3672244.8	557596.5
FLAG	780028.7	3325290.6	90 05 47.12421	30 01 35.92926	3672242.6	557295.4
FLAG	780029.2	3325372.9	90 05 47.02702	30 01 38.59851	3672248.2	557565.1
FLAG	780029.9	3325344.1	90 05 47.02646	30 01 37.66356	3672249.3	557470.7
FLAG	780030.2	3325347.8	90 05 47.01462	30 01 37.78275	3672250.2	557482.8
FLAG	780030.5	3325353.6	90 05 46.99484	30 01 37.97354	3672251.7	557502.0
FLAG	780030.7	3325308.0	90 05 47.03136	30 01 36.49140	3672250.1	557352.3
FLAG	780030.8	3325360.9	90 05 46.97935	30 01 38.20781	3672252.8	557525.7
FLAG	780031.3	3325422.8	90 05 46.90246	30 01 40.21595	3672257.4	557728.6
FLAG	780033.3	3325272.9	90 05 46.96660	30 01 35.35127	3672257.1	557237.2
FLAG	780033.6	3325325.9	90 05 46.90533	30 01 37.07046	3672260.6	557410.9
FLAG	780036.7	3325326.3	90 05 46.79112	30 01 37.08057	3672270.6	557412.0
FLAG	780039.8	3325273.5	90 05 46.72631	30 01 35.36414	3672278.2	557238.7
FLAG	780041.2	3325327.1	90 05 46.62312	30 01 37.10189	3672285.3	557414.3
FLAG	780045.5	3325274.3	90 05 46.51226	30 01 35.38545	3672297.0	557241.1
FLAG	780045.7	3325390.4	90 05 46.39305	30 01 39.15489	3672303.3	557621.9
FLAG	780050.1	3325328.8	90 05 46.29047	30 01 37.14971	3672314.5	557419.5
GRATE	779992.2	3325157.3	90 05 48.61067	30 01 31.63423	3672116.6	556860.2
GRATE	780034.8	3325424.2	90 05 46.77043	30 01 40.25881	3672269.0	557733.1
LAMP	778445.8	3325119.5	90 06 46.30653	30 01 31.67715	3667045.2	556810.1
LAMP	778479.1	3325154.4	90 06 45.03307	30 01 32.78136	3667156.0	556922.9
LAMP	778510.6	3325182.0	90 06 43.83266	30 01 33.65387	3667260.5	557012.1
LAMP	778511.1	3325182.3	90 06 43.81236	30 01 33.66046	3667262.3	557012.8
LAMP	778546.5	3325209.3	90 06 42.46761	30 01 34.50911	3667379.6	557099.8
LAMP	778587.6	3325227.1	90 06 40.92019	30 01 35.05242	3667515.0	557156.1
LAMP	778630.1	3325242.4	90 06 39.31798	30 01 35.51277	3667655.4	557204.1
LAMP	778679.6	3325243.4	90 06 37.47147	30 01 35.50544	3667817.7	557205.1
LAMP	779710.9	3325096.5	90 05 59.15497	30 01 29.89419	3671191.7	556674.4
LAMP	779743.2	3325124.3	90 05 57.92397	30 01 30.76853	3671298.9	556763.9
LAMP	779777.7	3325153.8	90 05 56.61117	30 01 31.69807	3671413.3	556859.0
LAMP	779798.3	3325309.8	90 05 55.69676	30 01 36.74192	3671488.2	557369.4
LAMP	779813.1	3325189.2	90 05 55.25810	30 01 32.81737	3671531.0	556973.4

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
LAMP	779836.7	3325239.7	90 05 54.33105	30 01 34.43711	3671610.7	557137.9
LAMP	780033.0	3325436.4	90 05 46.82299	30 01 40.65566	3672263.9	557773.1
LAMP	780039.2	3325407.7	90 05 46.62064	30 01 39.72086	3672282.7	557678.9
LAMP	780048.0	3325382.4	90 05 46.31549	30 01 38.89357	3672310.4	557595.6
MH	780053.5	3325323.2	90 05 46.16662	30 01 36.96707	3672325.6	557401.2
MH DRAIN	779835.6	3325239.4	90 05 54.37191	30 01 34.42678	3671607.2	557136.8
MH DRAIN	779955.3	3325107.1	90 05 50.03466	30 01 30.03490	3671993.2	556697.3
MH NOPSI	779531.8	3325312.3	90 06 05.63098	30 01 37.04254	3670614.7	557390.4
MH NOPSI	779779.8	3325154.7	90 05 56.53200	30 01 31.72613	3671420.2	556861.9
MH NOPSI	779958.9	3325130.4	90 05 49.87621	30 01 30.78822	3672006.3	556773.5
MH NOPSI	780008.3	3325210.3	90 05 47.95994	30 01 33.34029	3672171.9	557033.1
MH NOPSI 3	779558.4	3325308.0	90 06 04.64412	30 01 36.88208	3670701.6	557375.1
MH SEWER	778762.1	3325277.0	90 06 34.36619	30 01 36.52907	3668089.5	557311.4
MH SEWER	778764.3	3325270.2	90 06 34.28937	30 01 36.30540	3668096.5	557288.9
MH SEWER	778779.1	3325226.9	90 06 33.77804	30 01 34.88947	3668143.0	557146.4
MH SEWER	779687.5	3325078.6	90 06 00.04522	30 01 29.33071	3671114.0	556616.7
MH WATER	779797.6	3325313.0	90 05 55.71858	30 01 36.84708	3671486.2	557380.0
MH WATER	779800.5	3325383.0	90 05 55.54574	30 01 39.11499	3671498.9	557609.2
NOPSI	778664.3	3325190.2	90 06 38.09356	30 01 33.79355	3667764.8	557031.6
PHONE	778762.3	3325214.2	90 06 34.41535	30 01 34.49020	3668087.4	557105.4
PHONE	778763.6	3325218.0	90 06 34.36275	30 01 34.61466	3668091.9	557118.1
PHONE	778766.6	3325223.6	90 06 34.24740	30 01 34.79265	3668101.8	557136.1
PHONE	778768.1	3325226.9	90 06 34.18803	30 01 34.89952	3668106.9	557147.0
PHONE	778772.4	3325229.6	90 06 34.02477	30 01 34.98110	3668121.2	557155.4
PHONE	778773.6	3325247.4	90 06 33.96238	30 01 35.55820	3668126.0	557213.7
PHONE	778773.9	3325245.7	90 06 33.95562	30 01 35.50344	3668126.7	557208.2
PHONE	778773.9	3325252.1	90 06 33.94940	30 01 35.71097	3668127.0	557229.2
PHONE	778774.0	3325257.9	90 06 33.94027	30 01 35.89827	3668127.6	557248.1
PHONE	778774.1	3325261.5	90 06 33.93043	30 01 36.01494	3668128.4	557259.9
PHONE	778774.8	3325241.3	90 06 33.92491	30 01 35.36082	3668129.6	557193.8
PHONE	778775.6	3325267.1	90 06 33.87248	30 01 36.19616	3668133.3	557278.3
PHONE	778775.9	3325233.7	90 06 33.89052	30 01 35.11217	3668132.8	557168.7
PHONE	778776.1	3325235.9	90 06 33.88117	30 01 35.18518	3668133.6	557176.1
PHONE	778777.7	3325271.9	90 06 33.78676	30 01 36.34964	3668140.6	557293.8
PHONE BOX	778780.4	3325277.3	90 06 33.68260	30 01 36.52371	3668149.6	557311.5
SET PLATE	779249.7	3325227.0	90 06 16.23201	30 01 34.50489	3669685.6	557124.0
SET PLATE	779294.2	3325234.8	90 06 14.56427	30 01 34.72332	3669832.0	557147.7
SET PLATE	779385.1	3325250.5	90 06 11.16090	30 01 35.15841	3670130.7	557194.8
SET PLATE	779429.4	3325257.7	90 06 09.50003	30 01 35.35340	3670276.4	557216.1
SET PLATE	779516.4	3325263.9	90 06 06.24917	30 01 35.48379	3670562.0	557232.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
SET PLATE	779593.3	3325276.8	90 06 03.37054	30 01 35.83932	3670814.7	557271.0
SET PLATE	779614.5	3325291.2	90 06 02.56621	30 01 36.28911	3670884.9	557317.1
SET PLATE	779685.5	3325336.4	90 05 59.87606	30 01 37.69634	3671119.8	557461.8
SET PLATE	779725.1	3325337.7	90 05 58.39822	30 01 37.70614	3671249.7	557464.2
SET PLATE	779770.7	3325334.3	90 05 56.70112	30 01 37.56035	3671399.0	557451.1
SET PLATE	779819.1	3325330.9	90 05 54.90009	30 01 37.40830	3671557.5	557437.5
SET PLATE	779860.0	3325322.0	90 05 53.38402	30 01 37.08864	3671691.1	557406.6
SIGN	779723.9	3325106.8	90 05 58.66136	30 01 30.21766	3671234.7	556707.6
SS DRAIN	779712.9	3325099.3	90 05 59.07825	30 01 29.98283	3671198.3	556683.4
SS INLET	779680.7	3325071.5	90 06 00.30624	30 01 29.10540	3671091.3	556593.6
SS INLET	779752.5	3325133.1	90 05 57.57073	30 01 31.04694	3671329.7	556792.4
SS INLET	779790.4	3325165.2	90 05 56.12596	30 01 32.05600	3671455.6	556895.6
SS INLET	779822.9	3325206.6	90 05 54.87696	30 01 33.37315	3671563.9	557029.9
SS INLET	779840.2	3325252.2	90 05 54.18739	30 01 34.83822	3671622.9	557178.5
SS INLET	779965.9	3325106.1	90 05 49.64060	30 01 29.99438	3672027.9	556693.5
SS INLET	780034.7	3325426.8	90 05 46.76932	30 01 40.34418	3672269.0	557741.7
SS INLET	780036.0	3325206.5	90 05 46.93106	30 01 33.19506	3672262.5	557019.4
SS INLET	780061.6	3325322.6	90 05 45.86697	30 01 36.93912	3672352.0	557398.6
STORM DRAIN	778763.3	3325214.9	90 06 34.37817	30 01 34.51406	3668090.6	557107.9
UTIL PANL	778440.0	3325114.9	90 06 46.52724	30 01 31.53154	3667026.0	556795.2
VAULT ELEC	778905.1	3325282.9	90 06 29.02804	30 01 36.60447	3668558.6	557324.1
WATER CVR	778753.7	3325283.3	90 06 34.67213	30 01 36.74040	3668062.4	557332.5

Note: NAD83.

Table A3. LPV103 flagged anomalies and utility locations

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
ANOMALY	781444.5	3325319.5	90 04 54.30225	30 01 35.69908	3676885.7	557322.6
ANOMALY	781452.1	3325328.4	90 04 54.01233	30 01 35.98209	3676910.9	557351.5
ANOMALY	781457.8	3325338.9	90 04 53.78801	30 01 36.31692	3676930.2	557385.5
ANOMALY	781458.8	3325348.9	90 04 53.74414	30 01 36.63993	3676933.7	557418.2
ANOMALY	781461.0	3325340.9	90 04 53.66758	30 01 36.37759	3676940.8	557391.7
ANOMALY	781462.6	3325350.9	90 04 53.59808	30 01 36.70056	3676946.5	557424.4
ANOMALY	781467.1	3325339.6	90 04 53.44377	30 01 36.33083	3676960.5	557387.2
ANOMALY	781471.5	3325354.2	90 04 53.26353	30 01 36.80141	3676975.8	557434.9
ANOMALY	781473.6	3325339.9	90 04 53.20041	30 01 36.33514	3676981.9	557387.9
ANOMALY	781480.2	3325354.1	90 04 52.94143	30 01 36.79211	3677004.1	557434.3
ANOMALY	781482.6	3325336.3	90 04 52.86768	30 01 36.21142	3677011.2	557375.7
ANOMALY	781486.9	3325350.5	90 04 52.69391	30 01 36.66974	3677026.0	557422.2

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
ANOMALY	781488.6	3325337.6	90 04 52.64247	30 01 36.24818	3677031.0	557379.6
ANOMALY	781490.2	3325349.9	90 04 52.56911	30 01 36.64677	3677037.0	557420.0
ANOMALY	781500.7	3325335.3	90 04 52.19232	30 01 36.16494	3677070.7	557371.7
ANOMALY	781500.8	3325345.6	90 04 52.17881	30 01 36.49856	3677071.5	557405.4
ANOMALY	781507.4	3325343.3	90 04 51.93597	30 01 36.41755	3677092.9	557397.4
ANOMALY	781508.9	3325338.2	90 04 51.88333	30 01 36.25178	3677097.7	557380.7
ANOMALY	781512.2	3325340.3	90 04 51.76055	30 01 36.31762	3677108.4	557387.5
BARREL	781510.0	3325404.1	90 04 51.78013	30 01 38.38931	3677104.4	557596.8
BLDG	780015.6	3325271.0	90 05 47.63009	30 01 35.30582	3672198.8	557232.0
BLDG	780016.6	3325277.3	90 05 47.58579	30 01 35.50715	3672202.5	557252.3
BLDG	780021.6	3325271.1	90 05 47.40446	30 01 35.30230	3672218.6	557231.8
BLDG	780022.2	3325276.7	90 05 47.37734	30 01 35.48511	3672220.8	557250.3
BLDG	780024.0	3325327.4	90 05 47.26489	30 01 37.12597	3672228.9	557416.2
BLDG	780025.2	3325320.5	90 05 47.22517	30 01 36.90292	3672232.6	557393.7
BLDG	780029.4	3325328.6	90 05 47.06155	30 01 37.16262	3672246.7	557420.1
BLDG	780030.8	3325323.1	90 05 47.01453	30 01 36.98138	3672251.1	557401.8
BLDG	780249.7	3325474.4	90 05 38.70860	30 01 41.71191	3672976.0	557887.5
BLDG	780250.0	3325469.8	90 05 38.70127	30 01 41.56032	3672976.8	557872.2
BLDG	780256.2	3325475.4	90 05 38.46533	30 01 41.73725	3672997.3	557890.3
BLDG	780257.3	3325470.8	90 05 38.42878	30 01 41.58820	3673000.7	557875.3
BLDG	780551.8	3325496.4	90 05 27.42099	30 01 42.17614	3673967.6	557945.2
BLDG	780553.6	3325501.6	90 05 27.34916	30 01 42.34344	3673973.7	557962.1
BLDG	780556.7	3325494.2	90 05 27.24007	30 01 42.09934	3673983.6	557937.6
BLDG	780558.9	3325499.2	90 05 27.15378	30 01 42.26091	3673991.0	557954.0
BLDG	781009.2	3325339.0	90 05 10.51611	30 01 36.69095	3675459.5	557407.2
BLDG	781010.7	3325345.9	90 05 10.45442	30 01 36.91477	3675464.7	557429.9
BLDG	781014.6	3325338.5	90 05 10.31475	30 01 36.67038	3675477.2	557405.4
BLDG	781017.4	3325344.1	90 05 10.20430	30 01 36.85024	3675486.7	557423.6
BLDG	781296.7	3325087.8	90 05 00.03482	30 01 28.30209	3676390.0	556569.9
BUSH	782084.8	3325768.7	90 04 30.00083	30 01 49.74251	3679006.2	558764.5
CENTERLINE	781877.6	3325818.6	90 04 37.67731	30 01 51.53318	3678329.5	558938.0
CENTERLINE	781889.0	3325828.2	90 04 37.24427	30 01 51.83634	3678367.2	558969.0
CENTERLINE	781929.4	3325827.1	90 04 35.74079	30 01 51.76459	3678499.4	558963.2
CENTERLINE	781966.8	3325826.8	90 04 34.34470	30 01 51.72582	3678622.2	558960.7
CENTERLINE	782001.0	3325827.0	90 04 33.06808	30 01 51.70391	3678734.4	558959.7
CENTERLINE	782014.2	3325826.2	90 04 32.57972	30 01 51.66743	3678777.4	558956.5
CENTERLINE	782024.3	3325821.5	90 04 32.20710	30 01 51.50515	3678810.3	558940.4
CENTERLINE	782047.6	3325805.3	90 04 31.35316	30 01 50.96135	3678885.9	558886.3
CENTERLINE	782069.7	3325788.6	90 04 30.54392	30 01 50.40017	3678957.7	558830.4
CENTERLINE	782120.5	3325769.9	90 04 28.66753	30 01 49.75122	3679123.3	558766.7

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
CENTERLINE	782122.0	3325802.4	90 04 28.57955	30 01 50.80458	3679129.9	558873.2
CENTERLINE	782124.2	3325759.1	90 04 28.54103	30 01 49.39718	3679134.8	558731.1
CENTERLINE	782132.1	3325805.2	90 04 28.20359	30 01 50.88822	3679162.9	558882.0
CONCRETE	782097.8	3325805.5	90 04 29.47944	30 01 50.92496	3679050.7	558884.5
CONCRETE	782102.4	3325782.9	90 04 29.32937	30 01 50.18731	3679064.7	558810.1
CONCRETE	782114.2	3325789.9	90 04 28.88407	30 01 50.40467	3679103.6	558832.5
CONCRETE	782117.0	3325790.0	90 04 28.78027	30 01 50.40570	3679112.7	558832.7
CONCRETE	782117.4	3325765.6	90 04 28.78781	30 01 49.61478	3679112.9	558752.8
CONCRETE	782121.3	3325793.1	90 04 28.61731	30 01 50.50519	3679126.9	558842.9
CONCRETE	782121.5	3325765.8	90 04 28.63597	30 01 49.61880	3679126.3	558753.4
CONCRETE	782125.7	3325812.1	90 04 28.43586	30 01 51.11563	3679142.2	558904.7
DRAIN	779722.1	3325108.1	90 05 58.72796	30 01 30.26137	3671228.8	556711.9
DRAIN	779755.7	3325137.9	90 05 57.44741	30 01 31.19844	3671340.4	556807.8
DRAIN	779791.1	3325168.1	90 05 56.09970	30 01 32.14916	3671457.8	556905.1
DRAIN	779811.5	3325191.2	90 05 55.31663	30 01 32.88308	3671525.8	556980.0
DRAIN	779824.7	3325211.9	90 05 54.80541	30 01 33.54537	3671570.0	557047.3
DRAIN	781432.7	3325212.5	90 04 54.84498	30 01 32.23466	3676841.8	556972.1
DRAIN	781518.1	3325335.3	90 04 51.54268	30 01 36.14856	3677127.8	557370.6
DRAIN	781557.5	3325447.1	90 04 49.96982	30 01 39.74361	3677262.1	557735.3
DRAIN	781563.3	3325339.6	90 04 49.85607	30 01 36.25361	3677275.9	557382.9
DRAIN	781597.1	3325344.6	90 04 48.58967	30 01 36.38617	3677387.1	557397.5
DRAIN	781624.6	3325356.9	90 04 47.55256	30 01 36.76102	3677477.8	557436.3
DRAIN	781637.8	3325365.4	90 04 47.05280	30 01 37.02725	3677521.5	557463.7
EL STA	782052.4	3325776.8	90 04 31.19912	30 01 50.03245	3678900.5	558792.7
ELEC STATIO	781765.2	3325608.7	90 04 42.06855	30 01 44.81521	3677950.9	558255.2
ELECTRIC	782041.3	3325769.0	90 04 31.62397	30 01 49.78950	3678863.4	558767.7
ELECTRIC	782052.5	3325775.3	90 04 31.19917	30 01 49.98365	3678900.6	558787.7
EXCAVATION	780247.7	3325499.1	90 05 38.75873	30 01 42.51507	3672970.7	557968.6
FIBER OPTIC	781944.8	3325775.7	90 04 35.21390	30 01 50.08523	3678547.6	558794.1
FLAG	779689.4	3325058.0	90 05 59.99568	30 01 28.66030	3671119.1	556549.0
FLAG	779690.3	3325065.1	90 05 59.95367	30 01 28.88964	3671122.6	556572.2
FLAG	779691.4	3325071.6	90 05 59.90670	30 01 29.10087	3671126.5	556593.6
FLAG	779692.3	3325075.8	90 05 59.87031	30 01 29.23695	3671129.5	556607.3
FLAG	779824.9	3325199.4	90 05 54.80741	30 01 33.13895	3671570.3	557006.3
FLAG	779834.6	3325205.0	90 05 54.44091	30 01 33.31125	3671602.3	557024.0
FLAG	779839.9	3325209.1	90 05 54.24078	30 01 33.43901	3671619.8	557037.1
FLAG	779848.7	3325216.1	90 05 53.90555	30 01 33.66002	3671649.0	557059.8
FLAG	779856.1	3325224.1	90 05 53.62014	30 01 33.91252	3671673.8	557085.6
FLAG	779865.5	3325233.1	90 05 53.26076	30 01 34.19923	3671705.1	557114.9
FLAG	779871.1	3325302.4	90 05 52.98742	30 01 36.44148	3671726.7	557341.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	779873.3	3325243.6	90 05 52.96148	30 01 34.53344	3671731.0	557148.9
FLAG	779879.2	3325252.6	90 05 52.73447	30 01 34.82024	3671750.7	557178.1
FLAG	779879.9	3325300.2	90 05 52.66282	30 01 36.36418	3671755.3	557334.1
FLAG	779882.8	3325260.2	90 05 52.59147	30 01 35.06420	3671763.0	557202.9
FLAG	779885.9	3325298.1	90 05 52.44206	30 01 36.29191	3671774.8	557327.0
FLAG	779886.4	3325269.5	90 05 52.44812	30 01 35.36103	3671775.2	557233.0
FLAG	779889.4	3325276.8	90 05 52.32965	30 01 35.59680	3671785.4	557256.9
FLAG	779891.2	3325284.0	90 05 52.25677	30 01 35.82723	3671791.6	557280.3
FLAG	779892.9	3325288.7	90 05 52.18768	30 01 35.97925	3671797.5	557295.7
FLAG	779953.8	3325122.4	90 05 50.07648	30 01 30.53397	3671989.0	556747.6
FLAG	779962.6	3325135.2	90 05 49.73537	30 01 30.94124	3672018.5	556789.1
FLAG	779967.3	3325140.4	90 05 49.55584	30 01 31.10725	3672034.1	556806.0
FLAG	779978.6	3325155.1	90 05 49.11918	30 01 31.57563	3672072.0	556853.8
FLAG	779986.5	3325164.5	90 05 48.81511	30 01 31.87320	3672098.4	556884.1
FLAG	779995.4	3325176.5	90 05 48.47309	30 01 32.25415	3672128.0	556922.9
FLAG	780010.5	3325217.5	90 05 47.86985	30 01 33.57271	3672179.6	557056.7
FLAG	780011.9	3325207.9	90 05 47.82683	30 01 33.25926	3672183.7	557025.1
FLAG	780012.3	3325428.1	90 05 47.60558	30 01 40.40359	3672195.4	557746.9
FLAG	780012.4	3325223.8	90 05 47.79400	30 01 33.77444	3672186.1	557077.1
FLAG	780014.1	3325232.7	90 05 47.72153	30 01 34.06271	3672192.1	557106.3
FLAG	780015.9	3325206.9	90 05 47.67786	30 01 33.22552	3672196.9	557021.8
FLAG	780016.5	3325426.1	90 05 47.45040	30 01 40.33718	3672209.1	557740.4
FLAG	780018.5	3325248.2	90 05 47.54314	30 01 34.56183	3672207.3	557156.9
FLAG	780020.4	3325430.0	90 05 47.30102	30 01 40.46063	3672222.1	557753.0
FLAG	780020.9	3325424.9	90 05 47.28768	30 01 40.29241	3672223.5	557736.0
FLAG	780020.9	3325205.6	90 05 47.49325	30 01 33.17923	3672213.1	557017.3
FLAG	780021.1	3325418.8	90 05 47.28543	30 01 40.09681	3672223.9	557716.2
FLAG	780022.0	3325258.7	90 05 47.40422	30 01 34.89996	3672219.1	557191.2
FLAG	780024.0	3325424.8	90 05 47.17244	30 01 40.28652	3672233.6	557735.5
FLAG	780024.5	3325402.3	90 05 47.17207	30 01 39.55723	3672234.4	557661.8
FLAG	780025.5	3325423.1	90 05 47.11742	30 01 40.23109	3672238.5	557730.0
FLAG	780025.6	3325397.3	90 05 47.13758	30 01 39.39416	3672237.6	557645.4
FLAG	780026.5	3325204.6	90 05 47.28478	30 01 33.14099	3672231.5	557013.6
FLAG	780026.6	3325389.9	90 05 47.10596	30 01 39.15174	3672240.7	557621.0
FLAG	780026.8	3325281.1	90 05 47.20217	30 01 35.62277	3672236.1	557264.4
FLAG	780027.4	3325349.9	90 05 47.11533	30 01 37.85302	3672241.3	557489.8
FLAG	780028.0	3325272.2	90 05 47.16635	30 01 35.33380	3672239.5	557235.2
FLAG	780028.0	3325382.0	90 05 47.06237	30 01 38.89484	3672244.8	557595.0
FLAG	780028.0	3325382.4	90 05 47.06183	30 01 38.90960	3672244.8	557596.5
FLAG	780028.7	3325290.6	90 05 47.12421	30 01 35.92926	3672242.6	557295.4

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	780029.2	3325372.9	90 05 47.02702	30 01 38.59851	3672248.2	557565.1
FLAG	780029.9	3325344.1	90 05 47.02646	30 01 37.66356	3672249.3	557470.7
FLAG	780030.2	3325347.8	90 05 47.01462	30 01 37.78275	3672250.2	557482.8
FLAG	780030.5	3325353.6	90 05 46.99484	30 01 37.97354	3672251.7	557502.0
FLAG	780030.7	3325308.0	90 05 47.03136	30 01 36.49140	3672250.1	557352.3
FLAG	780030.8	3325360.9	90 05 46.97935	30 01 38.20781	3672252.8	557525.7
FLAG	780031.3	3325422.8	90 05 46.90246	30 01 40.21595	3672257.4	557728.6
FLAG	780033.3	3325272.9	90 05 46.96660	30 01 35.35127	3672257.1	557237.2
FLAG	780033.6	3325325.9	90 05 46.90533	30 01 37.07046	3672260.6	557410.9
FLAG	780036.7	3325326.3	90 05 46.79112	30 01 37.08057	3672270.6	557412.0
FLAG	780039.8	3325273.5	90 05 46.72631	30 01 35.36414	3672278.2	557238.7
FLAG	780041.2	3325327.1	90 05 46.62312	30 01 37.10189	3672285.3	557414.3
FLAG	780045.5	3325274.3	90 05 46.51226	30 01 35.38545	3672297.0	557241.1
FLAG	780045.7	3325390.4	90 05 46.39305	30 01 39.15489	3672303.3	557621.9
FLAG	780050.1	3325328.8	90 05 46.29047	30 01 37.14971	3672314.5	557419.5
FLAG	780099.3	3325472.7	90 05 44.31922	30 01 41.77850	3672482.7	557888.9
FLAG	780104.7	3325475.7	90 05 44.11347	30 01 41.87337	3672500.7	557898.7
FLAG	780111.2	3325478.6	90 05 43.86828	30 01 41.96223	3672522.2	557907.9
FLAG	780117.4	3325481.6	90 05 43.63523	30 01 42.05527	3672542.6	557917.5
FLAG	780131.7	3325488.2	90 05 43.09666	30 01 42.25499	3672589.7	557938.2
FLAG	780137.0	3325492.1	90 05 42.89406	30 01 42.37740	3672607.4	557950.8
FLAG	780167.3	3325499.2	90 05 41.75676	30 01 42.58370	3672707.1	557972.7
FLAG	780170.6	3325494.9	90 05 41.63686	30 01 42.44231	3672717.8	557958.5
FLAG	780172.8	3325489.3	90 05 41.56186	30 01 42.25832	3672724.6	557940.0
FLAG	780175.2	3325486.5	90 05 41.47585	30 01 42.16645	3672732.2	557930.8
FLAG	780177.2	3325483.7	90 05 41.40323	30 01 42.07209	3672738.7	557921.4
FLAG	780245.0	3325491.5	90 05 38.86719	30 01 42.26876	3672961.4	557943.6
FLAG	780249.6	3325478.0	90 05 38.71033	30 01 41.82754	3672975.7	557899.2
FLAG	780250.2	3325475.7	90 05 38.68771	30 01 41.75363	3672977.8	557891.8
FLAG	780351.3	3325538.2	90 05 34.85842	30 01 43.69672	3673312.2	558091.7
FLAG	780353.8	3325527.6	90 05 34.77571	30 01 43.35145	3673319.9	558056.9
FLAG	780354.6	3325522.9	90 05 34.74983	30 01 43.19773	3673322.3	558041.4
FLAG	780355.7	3325518.8	90 05 34.71387	30 01 43.06574	3673325.6	558028.1
FLAG	780356.2	3325516.5	90 05 34.69764	30 01 42.98895	3673327.1	558020.3
FLAG	780357.2	3325513.9	90 05 34.66393	30 01 42.90288	3673330.2	558011.7
FLAG	780359.2	3325503.7	90 05 34.59674	30 01 42.57139	3673336.4	557978.3
FLAG	780360.1	3325500.2	90 05 34.56765	30 01 42.45858	3673339.1	557966.9
FLAG	780372.2	3325509.0	90 05 34.10832	30 01 42.73257	3673379.2	557995.0
FLAG	780376.4	3325505.8	90 05 33.95526	30 01 42.62396	3673392.8	557984.2
FLAG	780379.8	3325502.9	90 05 33.82981	30 01 42.52989	3673403.9	557974.8

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	780382.7	3325500.9	90 05 33.72336	30 01 42.46211	3673413.3	557968.1
FLAG	780434.9	3325504.8	90 05 31.77180	30 01 42.54538	3673584.8	557978.3
FLAG	780438.0	3325528.1	90 05 31.63641	30 01 43.29816	3673595.8	558054.5
FLAG	780438.1	3325531.6	90 05 31.63063	30 01 43.41050	3673596.2	558065.8
FLAG	780438.3	3325513.7	90 05 31.63716	30 01 42.83074	3673596.3	558007.3
FLAG	780438.8	3325551.2	90 05 31.58327	30 01 44.04708	3673599.7	558130.2
FLAG	780439.0	3325535.1	90 05 31.59351	30 01 43.52533	3673599.4	558077.5
FLAG	780439.0	3325516.8	90 05 31.60776	30 01 42.93022	3673598.8	558017.4
FLAG	780439.1	3325539.4	90 05 31.58528	30 01 43.66391	3673599.9	558091.5
FLAG	780439.3	3325555.1	90 05 31.56336	30 01 44.17421	3673601.3	558143.0
FLAG	780439.4	3325560.8	90 05 31.55176	30 01 44.35901	3673602.1	558161.7
FLAG	780439.5	3325520.1	90 05 31.58681	30 01 43.03677	3673600.5	558028.1
FLAG	780439.5	3325554.8	90 05 31.55338	30 01 44.16207	3673602.2	558141.8
FLAG	780450.7	3325534.8	90 05 31.15466	30 01 43.50543	3673638.0	558075.9
FLAG	780450.9	3325536.9	90 05 31.14742	30 01 43.57195	3673638.5	558082.6
FLAG	780451.1	3325531.5	90 05 31.14341	30 01 43.39765	3673639.1	558065.0
FLAG	780452.2	3325505.1	90 05 31.12671	30 01 42.53988	3673641.5	557978.4
FLAG	780464.2	3325511.0	90 05 30.67577	30 01 42.72062	3673680.9	557997.1
FLAG	780464.3	3325508.4	90 05 30.67544	30 01 42.63635	3673681.0	557988.6
FLAG	780464.5	3325515.5	90 05 30.65793	30 01 42.86639	3673682.3	558011.8
FLAG	780464.7	3325522.7	90 05 30.64397	30 01 43.10046	3673683.3	558035.5
FLAG	780465.3	3325519.2	90 05 30.62591	30 01 42.98549	3673685.0	558023.9
FLAG	780491.2	3325508.3	90 05 29.66985	30 01 42.61135	3673769.5	557987.0
FLAG	780491.3	3325509.7	90 05 29.66419	30 01 42.65827	3673769.9	557991.7
FLAG	780492.4	3325516.5	90 05 29.61995	30 01 42.87739	3673773.5	558013.9
FLAG	780492.5	3325513.7	90 05 29.61769	30 01 42.78493	3673773.8	558004.6
FLAG	780494.1	3325530.3	90 05 29.54369	30 01 43.32174	3673779.8	558058.9
FLAG	780494.1	3325527.1	90 05 29.54645	30 01 43.22079	3673779.6	558048.7
FLAG	780495.3	3325534.1	90 05 29.49540	30 01 43.44573	3673783.9	558071.4
FLAG	780495.7	3325538.2	90 05 29.47413	30 01 43.57744	3673785.6	558084.8
FLAG	780506.7	3325545.5	90 05 29.05744	30 01 43.80543	3673822.0	558108.2
FLAG	780506.8	3325542.0	90 05 29.05565	30 01 43.69285	3673822.3	558096.8
FLAG	780506.9	3325539.1	90 05 29.05587	30 01 43.59721	3673822.3	558087.2
FLAG	780506.9	3325551.8	90 05 29.04269	30 01 44.00990	3673823.0	558128.9
FLAG	780507.1	3325535.5	90 05 29.05162	30 01 43.48108	3673822.8	558075.4
FLAG	780507.4	3325514.3	90 05 29.06030	30 01 42.79192	3673822.8	558005.8
FLAG	780507.7	3325506.8	90 05 29.05682	30 01 42.54827	3673823.4	557981.2
FLAG	780510.6	3325509.3	90 05 28.94709	30 01 42.62977	3673833.0	557989.5
FLAG	780514.5	3325511.5	90 05 28.79902	30 01 42.69536	3673845.9	557996.3
FLAG	780517.6	3325514.2	90 05 28.68161	30 01 42.78202	3673856.1	558005.2

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	780521.3	3325515.7	90 05 28.54114	30 01 42.82738	3673868.4	558009.9
FLAG	780543.2	3325502.1	90 05 27.73622	30 01 42.36691	3673939.7	557964.1
FLAG	780543.5	3325511.1	90 05 27.71649	30 01 42.65901	3673941.1	557993.7
FLAG	780543.7	3325505.1	90 05 27.71744	30 01 42.46591	3673941.2	557974.2
FLAG	780543.9	3325514.0	90 05 27.70098	30 01 42.75337	3673942.4	558003.2
FLAG	780544.9	3325500.2	90 05 27.67625	30 01 42.30357	3673945.0	557957.8
FLAG	780544.9	3325526.4	90 05 27.65035	30 01 43.15394	3673946.4	558043.7
FLAG	780545.0	3325529.8	90 05 27.64491	30 01 43.26476	3673946.7	558054.9
FLAG	780545.2	3325521.6	90 05 27.64592	30 01 42.99933	3673946.9	558028.1
FLAG	780545.3	3325533.3	90 05 27.63130	30 01 43.37826	3673947.8	558066.4
FLAG	780547.6	3325499.3	90 05 27.57475	30 01 42.27464	3673954.0	557955.0
FLAG	780550.1	3325538.6	90 05 27.44609	30 01 43.54503	3673963.9	558083.4
FLAG	780552.5	3325504.7	90 05 27.38892	30 01 42.44345	3673970.1	557972.2
FLAG	780553.0	3325506.8	90 05 27.36926	30 01 42.51356	3673971.8	557979.3
FLAG	780553.3	3325540.5	90 05 27.32559	30 01 43.60561	3673974.4	558089.7
FLAG	780559.1	3325543.6	90 05 27.10601	30 01 43.70001	3673993.6	558099.4
FLAG	780560.1	3325488.5	90 05 27.12089	30 01 41.91154	3673994.3	557918.7
FLAG	780561.7	3325555.5	90 05 26.99592	30 01 44.08500	3674002.9	558138.4
FLAG	780563.2	3325487.3	90 05 27.00524	30 01 41.87025	3674004.5	557914.7
FLAG	780563.4	3325547.5	90 05 26.94301	30 01 43.82312	3674007.8	558112.0
FLAG	780567.3	3325484.0	90 05 26.85776	30 01 41.76105	3674017.6	557903.8
FLAG	780569.7	3325486.9	90 05 26.76345	30 01 41.85396	3674025.7	557913.3
FLAG	780570.6	3325484.5	90 05 26.73275	30 01 41.77559	3674028.5	557905.4
FLAG	780571.8	3325484.1	90 05 26.68836	30 01 41.75879	3674032.4	557903.7
FLAG	780572.6	3325489.0	90 05 26.65388	30 01 41.91705	3674035.3	557919.7
FLAG	780573.8	3325483.0	90 05 26.61605	30 01 41.72407	3674038.8	557900.3
FLAG	780574.4	3325490.5	90 05 26.58364	30 01 41.96495	3674041.4	557924.6
FLAG	780576.2	3325491.9	90 05 26.51752	30 01 42.00848	3674047.2	557929.1
FLAG	780578.0	3325481.3	90 05 26.45908	30 01 41.66531	3674052.7	557894.5
FLAG	780582.1	3325479.5	90 05 26.30801	30 01 41.60258	3674066.0	557888.3
FLAG	780583.6	3325498.8	90 05 26.23272	30 01 42.22773	3674072.0	557951.5
FLAG	780584.8	3325478.3	90 05 26.21062	30 01 41.56186	3674074.7	557884.3
FLAG	780585.7	3325500.9	90 05 26.15539	30 01 42.29466	3674078.7	557958.3
FLAG	780589.0	3325503.7	90 05 26.02825	30 01 42.38080	3674089.8	557967.2
FLAG	780589.7	3325477.0	90 05 26.02769	30 01 41.51540	3674090.8	557879.8
FLAG	780593.3	3325508.2	90 05 25.86305	30 01 42.52565	3674104.1	557982.0
FLAG	780596.2	3325475.2	90 05 25.78693	30 01 41.44965	3674112.0	557873.3
FLAG	780597.7	3325511.4	90 05 25.69534	30 01 42.62519	3674118.8	557992.2
FLAG	780602.2	3325514.8	90 05 25.52418	30 01 42.73013	3674133.7	558002.9
FLAG	780604.5	3325516.8	90 05 25.43713	30 01 42.79252	3674141.3	558009.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	780638.4	3325439.6	90 05 24.24576	30 01 40.26237	3674248.8	557754.9
FLAG	780639.2	3325441.4	90 05 24.21438	30 01 40.31855	3674251.5	557760.6
FLAG	780639.9	3325444.4	90 05 24.18684	30 01 40.41570	3674253.8	557770.4
FLAG	780641.2	3325447.4	90 05 24.13633	30 01 40.51345	3674258.1	557780.3
FLAG	780643.1	3325449.4	90 05 24.06308	30 01 40.57615	3674264.5	557786.8
FLAG	780646.9	3325458.4	90 05 23.91420	30 01 40.86340	3674277.3	557815.9
FLAG	780648.2	3325461.3	90 05 23.86140	30 01 40.95688	3674281.8	557825.4
FLAG	780649.6	3325464.1	90 05 23.80543	30 01 41.04758	3674286.6	557834.6
FLAG	780651.6	3325469.3	90 05 23.72799	30 01 41.21522	3674293.2	557851.6
FLAG	780652.9	3325447.7	90 05 23.69964	30 01 40.51193	3674296.5	557780.6
FLAG	780653.9	3325474.8	90 05 23.63683	30 01 41.39018	3674301.1	557869.4
FLAG	780656.7	3325443.8	90 05 23.56145	30 01 40.38378	3674308.8	557767.8
FLAG	780657.4	3325480.9	90 05 23.50094	30 01 41.58695	3674312.8	557889.4
FLAG	780660.2	3325441.4	90 05 23.43113	30 01 40.30044	3674320.3	557759.5
FLAG	780663.1	3325439.5	90 05 23.32544	30 01 40.23735	3674329.7	557753.2
FLAG	780664.7	3325437.9	90 05 23.26748	30 01 40.18535	3674334.8	557748.0
FLAG	780669.3	3325434.8	90 05 23.10057	30 01 40.07987	3674349.6	557737.5
FLAG	780672.1	3325432.0	90 05 22.99934	30 01 39.98682	3674358.6	557728.2
FLAG	780674.2	3325430.1	90 05 22.91995	30 01 39.92273	3674365.7	557721.8
FLAG	780680.6	3325425.7	90 05 22.68715	30 01 39.77514	3674386.3	557707.2
FLAG	780683.8	3325423.0	90 05 22.56851	30 01 39.68384	3674396.8	557698.0
FLAG	780685.5	3325466.6	90 05 22.46544	30 01 41.09834	3674404.3	557841.0
FLAG	780685.5	3325460.4	90 05 22.47061	30 01 40.89719	3674404.1	557820.7
FLAG	780685.9	3325461.8	90 05 22.45382	30 01 40.94315	3674405.5	557825.4
FLAG	780690.2	3325417.5	90 05 22.33538	30 01 39.50278	3674417.5	557680.0
FLAG	780738.3	3325396.0	90 05 20.56366	30 01 38.76524	3674574.1	557607.2
FLAG	780741.6	3325400.6	90 05 20.43768	30 01 38.90985	3674585.0	557621.9
FLAG	780743.8	3325421.0	90 05 20.33494	30 01 39.57150	3674593.3	557688.8
FLAG	780744.1	3325417.8	90 05 20.32774	30 01 39.46810	3674594.0	557678.4
FLAG	780744.5	3325405.2	90 05 20.32388	30 01 39.05912	3674594.8	557637.1
FLAG	780746.7	3325408.5	90 05 20.23888	30 01 39.16253	3674602.2	557647.6
FLAG	780748.5	3325410.6	90 05 20.17072	30 01 39.22982	3674608.1	557654.5
FLAG	780907.1	3325387.7	90 05 14.27605	30 01 38.35523	3675127.2	557571.8
FLAG	780907.5	3325390.3	90 05 14.25905	30 01 38.44018	3675128.6	557580.4
FLAG	780908.2	3325393.5	90 05 14.23165	30 01 38.54119	3675130.9	557590.6
FLAG	780908.9	3325396.5	90 05 14.20280	30 01 38.64101	3675133.3	557600.7
FLAG	780916.9	3325347.3	90 05 13.95051	30 01 37.03536	3675157.2	557438.7
FLAG	780917.0	3325347.1	90 05 13.94535	30 01 37.02908	3675157.7	557438.1
FLAG	780919.3	3325350.4	90 05 13.85736	30 01 37.13534	3675165.3	557448.9
FLAG	780919.5	3325350.2	90 05 13.85229	30 01 37.12897	3675165.8	557448.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	780928.0	3325359.2	90 05 13.52341	30 01 37.41376	3675194.4	557477.4
FLAG	780931.6	3325363.4	90 05 13.38688	30 01 37.54787	3675206.2	557491.1
FLAG	780935.3	3325367.8	90 05 13.24476	30 01 37.68667	3675218.5	557505.2
FLAG	780936.1	3325358.4	90 05 13.22187	30 01 37.38142	3675220.9	557474.4
FLAG	780942.0	3325375.6	90 05 12.98890	30 01 37.93454	3675240.8	557530.5
FLAG	780942.3	3325354.1	90 05 12.99573	30 01 37.23706	3675240.9	557460.0
FLAG	780944.5	3325380.3	90 05 12.88992	30 01 38.08338	3675249.3	557545.6
FLAG	780947.9	3325349.2	90 05 12.79074	30 01 37.07262	3675259.1	557443.6
FLAG	780948.8	3325319.9	90 05 12.78620	30 01 36.11967	3675260.6	557347.4
FLAG	780953.7	3325344.9	90 05 12.58205	30 01 36.92731	3675277.6	557429.1
FLAG	780959.2	3325340.7	90 05 12.38000	30 01 36.78735	3675295.5	557415.2
FLAG	780961.2	3325339.6	90 05 12.30548	30 01 36.75070	3675302.1	557411.6
FLAG	781264.5	3325325.4	90 05 01.00818	30 01 36.03932	3676295.9	557350.5
FLAG	781265.3	3325327.8	90 05 00.97839	30 01 36.11642	3676298.4	557358.3
FLAG	781265.9	3325330.5	90 05 00.95408	30 01 36.20364	3676300.5	557367.2
FLAG	781266.1	3325331.9	90 05 00.94465	30 01 36.24895	3676301.3	557371.8
FLAG	781270.6	3325345.2	90 05 00.76362	30 01 36.67684	3676316.7	557415.2
FLAG	781270.9	3325344.7	90 05 00.75431	30 01 36.65972	3676317.5	557413.4
FLAG	781271.3	3325346.9	90 05 00.73431	30 01 36.73093	3676319.2	557420.6
FLAG	781271.6	3325347.6	90 05 00.72444	30 01 36.75464	3676320.1	557423.1
FLAG	781273.1	3325351.5	90 05 00.66349	30 01 36.87748	3676325.3	557435.5
FLAG	781273.5	3325352.3	90 05 00.65000	30 01 36.90257	3676326.4	557438.1
FLAG	781274.4	3325354.5	90 05 00.61388	30 01 36.97495	3676329.5	557445.4
FLAG	781275.8	3325144.3	90 05 00.76040	30 01 30.15396	3676324.2	556756.3
FLAG	781278.0	3325343.5	90 05 00.49010	30 01 36.61513	3676340.8	557409.2
FLAG	781279.2	3325345.3	90 05 00.44233	30 01 36.67163	3676345.0	557414.9
FLAG	781279.5	3325345.2	90 05 00.43345	30 01 36.66900	3676345.7	557414.7
FLAG	781281.1	3325348.4	90 05 00.36767	30 01 36.76962	3676351.4	557424.9
FLAG	781283.1	3325351.2	90 05 00.29297	30 01 36.85887	3676357.9	557434.0
FLAG	781283.9	3325174.5	90 05 00.42999	30 01 31.12529	3676352.2	556854.7
FLAG	781284.9	3325181.7	90 05 00.38466	30 01 31.36061	3676355.9	556878.5
FLAG	781285.0	3325158.5	90 05 00.40311	30 01 30.60720	3676355.1	556802.4
FLAG	781285.6	3325148.0	90 05 00.39281	30 01 30.26470	3676356.4	556767.8
FLAG	781286.3	3325131.7	90 05 00.38027	30 01 29.73511	3676358.1	556714.3
FLAG	781286.8	3325357.5	90 05 00.14924	30 01 37.06289	3676370.3	557454.7
FLAG	781287.3	3325124.4	90 05 00.35014	30 01 29.49778	3676361.0	556690.4
FLAG	781287.5	3325108.3	90 05 00.35708	30 01 28.97674	3676360.9	556637.7
FLAG	781287.6	3325117.7	90 05 00.34714	30 01 29.27902	3676361.5	556668.3
FLAG	781287.9	3325099.8	90 05 00.35154	30 01 28.69847	3676361.7	556609.6
FLAG	781288.6	3325094.1	90 05 00.32926	30 01 28.51272	3676363.9	556590.9

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	781288.7	3325080.0	90 05 00.34046	30 01 28.05657	3676363.4	556544.8
FLAG	781288.7	3325089.9	90 05 00.33001	30 01 28.37900	3676364.0	556577.4
FLAG	781289.1	3325054.0	90 05 00.34930	30 01 27.21349	3676363.6	556459.6
FLAG	781289.1	3325057.9	90 05 00.34551	30 01 27.33922	3676363.7	556472.4
FLAG	781289.1	3325067.2	90 05 00.33619	30 01 27.64203	3676364.2	556502.9
FLAG	781291.9	3325086.6	90 05 00.21562	30 01 28.26906	3676374.1	556566.4
FLAG	781293.4	3325087.0	90 05 00.15931	30 01 28.27836	3676379.1	556567.4
FLAG	781298.8	3325078.6	90 04 59.96453	30 01 28.00382	3676396.5	556539.8
FLAG	781299.4	3325071.9	90 04 59.95112	30 01 27.78420	3676397.9	556517.7
FLAG	781299.8	3325059.7	90 04 59.94442	30 01 27.38880	3676398.9	556477.7
FLAG	781300.1	3325065.6	90 04 59.92813	30 01 27.57937	3676400.2	556497.0
FLAG	781321.6	3325199.4	90 04 59.00142	30 01 31.90187	3676476.9	556934.5
FLAG	781323.7	3325198.8	90 04 58.92126	30 01 31.88090	3676483.9	556932.5
FLAG	781329.4	3325197.3	90 04 58.71141	30 01 31.82790	3676502.4	556927.3
FLAG	781409.1	3325353.9	90 04 55.59173	30 01 36.84507	3676771.1	557437.1
FLAG	781415.4	3325356.9	90 04 55.35349	30 01 36.93692	3676792.0	557446.6
FLAG	781422.2	3325374.8	90 04 55.08337	30 01 37.51164	3676815.1	557504.9
FLAG	781422.8	3325269.0	90 04 55.16048	30 01 34.07928	3676812.1	557158.1
FLAG	781424.3	3325268.1	90 04 55.10735	30 01 34.04869	3676816.8	557155.1
FLAG	781427.5	3325385.8	90 04 54.87491	30 01 37.86282	3676833.0	557540.6
FLAG	781432.0	3325391.7	90 04 54.70204	30 01 38.05008	3676848.0	557559.7
FLAG	781439.2	3325400.9	90 04 54.42397	30 01 38.34375	3676872.1	557589.6
FLAG	781444.4	3325319.6	90 04 54.30682	30 01 35.70126	3676885.3	557322.8
FLAG	781446.2	3325409.4	90 04 54.15312	30 01 38.61247	3676895.6	557617.0
FLAG	781452.0	3325328.9	90 04 54.01576	30 01 35.99626	3676910.6	557352.9
FLAG	781454.7	3325415.6	90 04 53.83181	30 01 38.80764	3676923.6	557637.0
FLAG	781457.7	3325418.2	90 04 53.71741	30 01 38.89053	3676933.6	557645.5
FLAG	781457.9	3325339.3	90 04 53.78520	30 01 36.32991	3676930.5	557386.8
FLAG	781459.0	3325348.8	90 04 53.73580	30 01 36.63673	3676934.5	557417.8
FLAG	781460.8	3325420.3	90 04 53.60036	30 01 38.95679	3676943.8	557652.3
FLAG	781461.2	3325341.0	90 04 53.66239	30 01 36.38276	3676941.2	557392.3
FLAG	781462.9	3325350.9	90 04 53.58892	30 01 36.70110	3676947.3	557424.5
FLAG	781464.0	3325421.8	90 04 53.48071	30 01 39.00089	3676954.3	557656.9
FLAG	781471.5	3325354.3	90 04 53.26335	30 01 36.80634	3676975.8	557435.4
FLAG	781472.0	3325419.7	90 04 53.18237	30 01 38.92689	3676980.6	557649.7
FLAG	781476.9	3325419.5	90 04 53.00052	30 01 38.91766	3676996.6	557649.0
FLAG	781477.1	3325366.0	90 04 53.04273	30 01 37.18040	3676994.8	557473.4
FLAG	781479.6	3325375.8	90 04 52.94169	30 01 37.49474	3677003.3	557505.3
FLAG	781481.1	3325419.6	90 04 52.84535	30 01 38.91496	3677010.2	557648.8
FLAG	781481.3	3325380.7	90 04 52.87448	30 01 37.65403	3677009.1	557521.4

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	781484.8	3325394.2	90 04 52.72994	30 01 38.08783	3677021.3	557565.4
FLAG	781485.4	3325388.6	90 04 52.71152	30 01 37.90668	3677023.1	557547.1
FLAG	781488.3	3325394.3	90 04 52.59963	30 01 38.08965	3677032.7	557565.7
FLAG	781489.0	3325396.0	90 04 52.57305	30 01 38.14243	3677035.0	557571.1
FLAG	781491.8	3325400.4	90 04 52.46260	30 01 38.28391	3677044.6	557585.5
FLAG	781512.7	3325423.6	90 04 51.66044	30 01 39.02021	3677114.3	557660.6
FLAG	781540.1	3325425.6	90 04 50.63641	30 01 39.06261	3677204.2	557665.9
FLAG	781542.2	3325427.6	90 04 50.55728	30 01 39.12578	3677211.1	557672.3
FLAG	781543.5	3325354.9	90 04 50.57893	30 01 36.76528	3677211.8	557433.9
FLAG	781545.7	3325431.8	90 04 50.42446	30 01 39.25777	3677222.6	557685.8
FLAG	781547.3	3325361.1	90 04 50.43086	30 01 36.96325	3677224.6	557454.0
FLAG	781550.6	3325367.2	90 04 50.30299	30 01 37.15684	3677235.6	557473.7
FLAG	781551.1	3325437.0	90 04 50.21841	30 01 39.42248	3677240.6	557702.6
FLAG	781552.9	3325441.9	90 04 50.14360	30 01 39.57874	3677247.0	557718.5
FLAG	781553.9	3325375.4	90 04 50.16979	30 01 37.42248	3677247.0	557500.6
FLAG	781555.8	3325459.0	90 04 50.02088	30 01 40.13347	3677257.1	557774.6
FLAG	781558.9	3325440.0	90 04 49.92258	30 01 39.51328	3677266.5	557712.1
FLAG	781559.4	3325384.3	90 04 49.95761	30 01 37.70443	3677265.4	557529.3
FLAG	781561.1	3325433.7	90 04 49.84819	30 01 39.30825	3677273.2	557691.4
FLAG	781561.4	3325414.9	90 04 49.85365	30 01 38.69727	3677273.4	557629.7
FLAG	781561.9	3325421.0	90 04 49.83149	30 01 38.89295	3677275.2	557649.5
FLAG	781563.6	3325425.0	90 04 49.76199	30 01 39.02361	3677281.1	557662.8
FLAG	781563.8	3325380.9	90 04 49.79687	30 01 37.59138	3677279.6	557518.1
FLAG	781564.1	3325407.3	90 04 49.75915	30 01 38.44758	3677282.0	557604.6
FLAG	781564.9	3325341.2	90 04 49.79447	30 01 36.30426	3677281.3	557388.0
FLAG	781565.7	3325394.6	90 04 49.71342	30 01 38.03351	3677286.5	557562.8
FLAG	781566.4	3325369.0	90 04 49.71194	30 01 37.20371	3677287.5	557479.0
FLAG	781566.4	3325365.0	90 04 49.71532	30 01 37.07327	3677287.4	557465.8
FLAG	781567.1	3325373.3	90 04 49.68074	30 01 37.34140	3677290.1	557492.9
FLAG	781567.3	3325361.0	90 04 49.68391	30 01 36.94193	3677290.3	557452.6
FLAG	781571.6	3325340.9	90 04 49.54314	30 01 36.28643	3677303.4	557386.5
FLAG	781572.8	3325346.4	90 04 49.49527	30 01 36.46589	3677307.4	557404.7
FLAG	781573.0	3325344.5	90 04 49.48869	30 01 36.40386	3677308.0	557398.4
FLAG	781573.5	3325355.3	90 04 49.45959	30 01 36.75237	3677310.2	557433.6
FLAG	781574.3	3325349.8	90 04 49.43376	30 01 36.57322	3677312.7	557415.6
FLAG	781575.0	3325408.5	90 04 49.35479	30 01 38.47723	3677317.5	557608.0
FLAG	781583.3	3325425.6	90 04 49.02852	30 01 39.02476	3677345.6	557663.6
FLAG	781592.7	3325444.0	90 04 48.66107	30 01 39.61620	3677377.2	557723.7
FLAG	781595.8	3325451.0	90 04 48.53624	30 01 39.83953	3677388.0	557746.4
FLAG	781602.5	3325462.3	90 04 48.27649	30 01 40.20155	3677410.4	557783.2

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	781607.0	3325470.8	90 04 48.10123	30 01 40.47152	3677425.5	557810.6
FLAG	781612.3	3325480.4	90 04 47.89335	30 01 40.77972	3677443.4	557842.0
FLAG	781615.1	3325487.9	90 04 47.78348	30 01 41.01959	3677452.8	557866.3
FLAG	781616.8	3325404.6	90 04 47.79804	30 01 38.31522	3677454.5	557593.1
FLAG	781622.0	3325499.8	90 04 47.51350	30 01 41.40219	3677476.1	557905.2
FLAG	781625.5	3325507.2	90 04 47.37471	30 01 41.63816	3677488.1	557929.2
FLAG	781629.7	3325514.7	90 04 47.21363	30 01 41.87880	3677502.0	557953.6
FLAG	781641.6	3325535.0	90 04 46.74773	30 01 42.52822	3677542.2	558019.7
FLAG	781648.4	3325548.3	90 04 46.48370	30 01 42.95450	3677564.9	558063.0
FLAG	781657.2	3325569.8	90 04 46.13546	30 01 43.64373	3677594.8	558132.9
FLAG	781658.6	3325426.4	90 04 46.22041	30 01 38.99102	3677592.4	557662.9
FLAG	781663.2	3325432.7	90 04 46.04093	30 01 39.18966	3677608.0	557683.1
FLAG	781665.7	3325581.4	90 04 45.80774	30 01 44.01392	3677623.2	558170.6
FLAG	781708.4	3325641.2	90 04 44.15690	30 01 45.91839	3677766.2	558364.6
FLAG	781714.8	3325654.2	90 04 43.90647	30 01 46.33259	3677787.7	558406.7
FLAG	781715.6	3325637.0	90 04 43.89253	30 01 45.77378	3677789.6	558350.3
FLAG	781718.5	3325635.1	90 04 43.78654	30 01 45.71114	3677798.9	558344.0
FLAG	781722.6	3325649.1	90 04 43.61961	30 01 46.16077	3677813.1	558389.6
FLAG	781724.0	3325631.9	90 04 43.58468	30 01 45.60422	3677816.8	558333.4
FLAG	781725.1	3325647.2	90 04 43.52988	30 01 46.09955	3677821.1	558383.5
FLAG	781728.6	3325628.7	90 04 43.41783	30 01 45.49428	3677831.6	558322.5
FLAG	781729.9	3325643.5	90 04 43.35469	30 01 45.97388	3677836.6	558371.0
FLAG	781730.7	3325627.0	90 04 43.34037	30 01 45.43730	3677838.5	558316.8
FLAG	781733.0	3325626.0	90 04 43.25278	30 01 45.40477	3677846.2	558313.6
FLAG	781734.6	3325640.1	90 04 43.17991	30 01 45.85980	3677852.1	558359.6
FLAG	781736.7	3325623.8	90 04 43.11682	30 01 45.32957	3677858.2	558306.1
FLAG	781736.8	3325638.6	90 04 43.09935	30 01 45.80895	3677859.2	558354.6
FLAG	781740.6	3325637.2	90 04 42.96177	30 01 45.76106	3677871.4	558349.9
FLAG	781742.0	3325620.1	90 04 42.92333	30 01 45.20592	3677875.4	558293.8
FLAG	781743.3	3325635.2	90 04 42.86159	30 01 45.69347	3677880.3	558343.1
FLAG	781748.2	3325631.7	90 04 42.68394	30 01 45.57540	3677896.0	558331.4
FLAG	781750.5	3325615.0	90 04 42.61260	30 01 45.03379	3677902.9	558276.7
FLAG	781750.5	3325615.4	90 04 42.61074	30 01 45.04514	3677903.0	558277.9
FLAG	781752.5	3325613.1	90 04 42.53803	30 01 44.96973	3677909.5	558270.3
FLAG	781753.3	3325613.6	90 04 42.50865	30 01 44.98430	3677912.1	558271.8
FLAG	781756.0	3325612.3	90 04 42.41008	30 01 44.93939	3677920.8	558267.4
FLAG	781756.2	3325612.0	90 04 42.40154	30 01 44.92920	3677921.5	558266.4
FLAG	781758.5	3325611.0	90 04 42.31621	30 01 44.89603	3677929.1	558263.1
FLAG	781758.6	3325609.9	90 04 42.31453	30 01 44.86145	3677929.3	558259.6
FLAG	781763.0	3325623.2	90 04 42.13944	30 01 45.28684	3677944.2	558302.8

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	781763.1	3325622.9	90 04 42.13551	30 01 45.27977	3677944.5	558302.0
FLAG	781764.7	3325622.1	90 04 42.07672	30 01 45.25120	3677949.7	558299.2
FLAG	781765.1	3325622.2	90 04 42.06062	30 01 45.25318	3677951.2	558299.4
FLAG	781811.5	3325838.0	90 04 40.12620	30 01 52.21868	3678113.5	559004.9
FLAG	781824.6	3325843.5	90 04 39.63153	30 01 52.38658	3678156.8	559022.3
FLAG	781847.6	3325851.9	90 04 38.76663	30 01 52.63894	3678232.5	559048.7
FLAG	781855.1	3325854.8	90 04 38.48329	30 01 52.72595	3678257.3	559057.7
FLAG	781867.2	3325859.2	90 04 38.02771	30 01 52.85875	3678297.2	559071.6
FLAG	781874.7	3325862.2	90 04 37.74600	30 01 52.95014	3678321.9	559081.1
FLAG	781882.9	3325864.0	90 04 37.43739	30 01 53.00335	3678348.9	559086.7
FLAG	781889.1	3325866.0	90 04 37.20394	30 01 53.06234	3678369.4	559092.9
FLAG	781893.4	3325868.2	90 04 37.04384	30 01 53.13037	3678383.4	559100.0
FLAG	781899.0	3325870.4	90 04 36.83112	30 01 53.19762	3678402.0	559106.9
FLAG	781900.4	3325832.6	90 04 36.81564	30 01 51.96917	3678404.7	558982.9
FLAG	781907.7	3325873.8	90 04 36.50582	30 01 53.30058	3678430.5	559117.7
FLAG	781914.6	3325873.0	90 04 36.24791	30 01 53.26631	3678453.2	559114.4
FLAG	781921.9	3325869.9	90 04 35.97808	30 01 53.16141	3678477.0	559104.1
FLAG	781922.0	3325807.3	90 04 36.03268	30 01 51.12859	3678474.5	558898.7
FLAG	781923.6	3325807.8	90 04 35.97457	30 01 51.14567	3678479.6	558900.5
FLAG	781928.1	3325808.1	90 04 35.80565	30 01 51.14958	3678494.4	558901.1
FLAG	781928.2	3325867.2	90 04 35.74618	30 01 53.06749	3678497.5	559094.9
FLAG	781932.2	3325808.8	90 04 35.65141	30 01 51.17069	3678507.9	558903.3
FLAG	781935.5	3325862.7	90 04 35.47728	30 01 52.91577	3678521.3	559079.8
FLAG	781938.0	3325810.7	90 04 35.43596	30 01 51.22688	3678526.8	558909.2
FLAG	781939.5	3325860.9	90 04 35.32947	30 01 52.85524	3678534.4	559073.8
FLAG	781940.2	3325813.2	90 04 35.35084	30 01 51.30576	3678534.2	558917.3
FLAG	781941.1	3325811.6	90 04 35.31642	30 01 51.25428	3678537.3	558912.1
FLAG	781941.9	3325806.9	90 04 35.29392	30 01 51.10193	3678539.4	558896.7
FLAG	781941.9	3325791.5	90 04 35.30827	30 01 50.59950	3678538.7	558846.0
FLAG	781942.0	3325789.2	90 04 35.30598	30 01 50.52487	3678539.0	558838.4
FLAG	781942.3	3325802.9	90 04 35.28043	30 01 50.97037	3678540.8	558883.5
FLAG	781942.4	3325793.8	90 04 35.28536	30 01 50.67438	3678540.7	558853.6
FLAG	781942.6	3325859.7	90 04 35.21526	30 01 52.81435	3678544.4	559069.8
FLAG	781942.8	3325786.9	90 04 35.27791	30 01 50.45162	3678541.6	558831.1
FLAG	781944.3	3325811.6	90 04 35.20001	30 01 51.25027	3678547.5	558911.8
FLAG	781947.4	3325779.9	90 04 35.11326	30 01 50.21867	3678556.3	558807.7
FLAG	781949.9	3325782.4	90 04 35.01912	30 01 50.29745	3678564.5	558815.7
FLAG	781951.2	3325809.1	90 04 34.94220	30 01 51.16297	3678570.3	558903.2
FLAG	781951.7	3325854.0	90 04 34.88079	30 01 52.62124	3678574.1	559050.6
FLAG	781952.5	3325784.9	90 04 34.91752	30 01 50.37734	3678573.3	558823.9

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	781955.2	3325781.0	90 04 34.82269	30 01 50.24964	3678581.8	558811.1
FLAG	781956.4	3325852.2	90 04 34.70741	30 01 52.55822	3678589.4	559044.4
FLAG	781957.6	3325783.9	90 04 34.72775	30 01 50.34182	3678590.0	558820.5
FLAG	781958.9	3325806.5	90 04 34.65776	30 01 51.07181	3678595.4	558894.3
FLAG	781959.0	3325850.1	90 04 34.61393	30 01 52.48751	3678597.7	559037.4
FLAG	781960.4	3325786.7	90 04 34.62094	30 01 50.43113	3678599.3	558829.6
FLAG	781961.8	3325876.8	90 04 34.48561	30 01 53.35241	3678608.0	559124.8
FLAG	781962.0	3325779.9	90 04 34.57057	30 01 50.20758	3678604.0	558807.1
FLAG	781962.3	3325849.2	90 04 34.49328	30 01 52.45629	3678608.3	559034.3
FLAG	781963.8	3325789.6	90 04 34.49327	30 01 50.52095	3678610.4	558838.8
FLAG	781964.4	3325874.0	90 04 34.38977	30 01 53.26044	3678616.5	559115.6
FLAG	781965.9	3325803.8	90 04 34.40219	30 01 50.98087	3678617.9	558885.4
FLAG	781966.7	3325791.4	90 04 34.38222	30 01 50.57816	3678620.1	558844.7
FLAG	781967.1	3325871.2	90 04 34.29017	30 01 53.16689	3678625.4	559106.3
FLAG	781967.9	3325845.1	90 04 34.28815	30 01 52.31728	3678626.5	559020.5
FLAG	781969.2	3325801.9	90 04 34.27780	30 01 50.91541	3678628.9	558878.9
FLAG	781969.8	3325792.9	90 04 34.26721	30 01 50.62326	3678630.2	558849.4
FLAG	781969.9	3325867.5	90 04 34.19047	30 01 53.04231	3678634.3	559093.8
FLAG	781970.1	3325845.1	90 04 34.20291	30 01 52.31665	3678634.0	559020.5
FLAG	781971.1	3325795.0	90 04 34.21574	30 01 50.69111	3678634.6	558856.3
FLAG	781972.6	3325862.4	90 04 34.09419	30 01 52.87637	3678642.9	559077.1
FLAG	781972.7	3325801.6	90 04 34.14791	30 01 50.90310	3678640.4	558877.8
FLAG	781973.7	3325797.9	90 04 34.11565	30 01 50.78063	3678643.3	558865.4
FLAG	781973.8	3325836.7	90 04 34.07543	30 01 52.04151	3678645.5	558992.8
FLAG	781974.2	3325809.8	90 04 34.08455	30 01 51.16718	3678645.6	558904.5
FLAG	781974.5	3325811.9	90 04 34.07256	30 01 51.23623	3678646.6	558911.5
FLAG	781974.8	3325822.0	90 04 34.05227	30 01 51.56353	3678648.0	558944.6
FLAG	781974.8	3325819.0	90 04 34.05426	30 01 51.46553	3678648.0	558934.7
FLAG	781974.9	3325814.3	90 04 34.05420	30 01 51.31267	3678648.2	558919.2
FLAG	781975.4	3325841.8	90 04 34.00896	30 01 52.20487	3678651.1	559009.4
FLAG	781976.4	3325858.6	90 04 33.95625	30 01 52.74781	3678655.2	559064.3
FLAG	781976.9	3325800.0	90 04 33.99444	30 01 50.84592	3678653.9	558872.1
FLAG	781977.0	3325840.5	90 04 33.95096	30 01 52.16215	3678656.3	559005.1
FLAG	781978.8	3325856.3	90 04 33.87121	30 01 52.67313	3678662.7	559056.8
FLAG	781978.8	3325805.8	90 04 33.91832	30 01 51.03403	3678660.4	558891.2
FLAG	781980.3	3325854.2	90 04 33.81468	30 01 52.60191	3678667.8	559049.7
FLAG	781980.5	3325802.2	90 04 33.85753	30 01 50.91739	3678665.9	558879.5
FLAG	781980.6	3325840.0	90 04 33.81672	30 01 52.14378	3678668.1	559003.4
FLAG	781982.4	3325839.4	90 04 33.75210	30 01 52.12214	3678673.8	559001.3
FLAG	781982.4	3325844.7	90 04 33.74543	30 01 52.29310	3678674.2	559018.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	781982.9	3325853.1	90 04 33.72136	30 01 52.56649	3678676.0	559046.2
FLAG	781985.4	3325809.4	90 04 33.66982	30 01 51.14532	3678682.1	558902.7
FLAG	781985.5	3325805.5	90 04 33.66865	30 01 51.02017	3678682.4	558890.1
FLAG	781987.3	3325849.9	90 04 33.55773	30 01 52.45863	3678690.5	559035.5
FLAG	781991.6	3325852.7	90 04 33.39500	30 01 52.54530	3678704.7	559044.4
FLAG	781992.3	3325814.4	90 04 33.40770	30 01 51.30137	3678705.0	558918.7
FLAG	781995.0	3325811.0	90 04 33.30794	30 01 51.18815	3678713.9	558907.4
FLAG	781995.1	3325841.8	90 04 33.27709	30 01 52.18736	3678715.5	559008.3
FLAG	781997.2	3325813.0	90 04 33.22441	30 01 51.25369	3678721.2	558914.1
FLAG	781999.3	3325815.2	90 04 33.14305	30 01 51.32263	3678728.2	558921.1
FLAG	782000.9	3325843.0	90 04 33.05853	30 01 52.22217	3678734.7	559012.1
FLAG	782001.3	3325817.4	90 04 33.06742	30 01 51.39241	3678734.8	558928.2
FLAG	782002.9	3325820.9	90 04 33.00606	30 01 51.50497	3678740.1	558939.7
FLAG	782015.1	3325850.8	90 04 32.52212	30 01 52.46439	3678781.5	559037.0
FLAG	782022.0	3325849.6	90 04 32.26643	30 01 52.42088	3678804.1	559032.9
FLAG	782023.9	3325850.5	90 04 32.19287	30 01 52.44674	3678810.5	559035.6
FLAG	782028.7	3325853.2	90 04 32.01089	30 01 52.52919	3678826.4	559044.1
FLAG	782033.6	3325850.3	90 04 31.83050	30 01 52.43215	3678842.4	559034.5
FLAG	782034.9	3325849.2	90 04 31.78617	30 01 52.39526	3678846.3	559030.8
FLAG	782036.4	3325848.5	90 04 31.72853	30 01 52.37096	3678851.4	559028.4
FLAG	782037.8	3325847.6	90 04 31.67907	30 01 52.33992	3678855.8	559025.3
FLAG	782040.3	3325833.8	90 04 31.59731	30 01 51.89197	3678863.5	558980.1
FLAG	782040.6	3325846.3	90 04 31.57597	30 01 52.29695	3678864.9	559021.0
FLAG	782042.5	3325790.9	90 04 31.55551	30 01 50.49677	3678868.7	558839.2
FLAG	782043.2	3325845.2	90 04 31.48030	30 01 52.25992	3678873.3	559017.4
FLAG	782044.0	3325838.8	90 04 31.45601	30 01 52.05045	3678875.7	558996.3
FLAG	782044.0	3325770.8	90 04 31.52008	30 01 49.84579	3678872.5	558773.5
FLAG	782044.1	3325843.9	90 04 31.44672	30 01 52.21660	3678876.3	559013.0
FLAG	782045.9	3325843.0	90 04 31.37964	30 01 52.18592	3678882.3	559010.0
FLAG	782046.7	3325843.1	90 04 31.34902	30 01 52.18664	3678885.0	559010.1
FLAG	782047.2	3325772.5	90 04 31.39710	30 01 49.89780	3678883.3	558778.9
FLAG	782050.0	3325773.8	90 04 31.29499	30 01 49.93812	3678892.2	558783.0
FLAG	782051.2	3325848.0	90 04 31.17770	30 01 52.34464	3678899.8	559026.2
FLAG	782051.6	3325840.8	90 04 31.16873	30 01 52.10915	3678900.9	559002.5
FLAG	782052.7	3325848.9	90 04 31.12160	30 01 52.37060	3678904.7	559028.9
FLAG	782052.7	3325790.7	90 04 31.17690	30 01 50.48364	3678902.0	558838.3
FLAG	782053.9	3325888.1	90 04 31.04054	30 01 53.64372	3678910.4	559157.6
FLAG	782055.0	3325851.6	90 04 31.03324	30 01 52.45838	3678912.4	559037.9
FLAG	782057.7	3325798.3	90 04 30.98240	30 01 50.72473	3678918.8	558862.8
FLAG	782058.1	3325886.8	90 04 30.88444	30 01 53.59609	3678924.2	559152.9

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	782063.8	3325884.1	90 04 30.67177	30 01 53.50279	3678943.0	559143.7
FLAG	782068.9	3325880.5	90 04 30.48757	30 01 53.38162	3678959.3	559131.7
FLAG	782072.9	3325866.4	90 04 30.35238	30 01 52.92202	3678971.7	559085.4
FLAG	782073.8	3325800.8	90 04 30.38032	30 01 50.79419	3678971.6	558870.4
FLAG	782073.8	3325800.7	90 04 30.37829	30 01 50.79090	3678971.8	558870.1
FLAG	782074.6	3325855.4	90 04 30.30003	30 01 52.56268	3678976.7	559049.1
FLAG	782075.9	3325848.8	90 04 30.25543	30 01 52.34731	3678980.9	559027.4
FLAG	782076.9	3325801.3	90 04 30.26436	30 01 50.80661	3678981.8	558871.8
FLAG	782078.4	3325872.7	90 04 30.14088	30 01 53.12053	3678990.1	559105.6
FLAG	782079.4	3325802.3	90 04 30.17040	30 01 50.83861	3678990.0	558875.1
FLAG	782080.5	3325870.9	90 04 30.06291	30 01 53.06159	3678997.0	559099.7
FLAG	782081.0	3325810.8	90 04 30.10345	30 01 51.11215	3678995.6	558902.8
FLAG	782082.3	3325803.6	90 04 30.06180	30 01 50.87610	3678999.5	558879.0
FLAG	782084.6	3325861.5	90 04 29.91832	30 01 52.75428	3679010.1	559068.8
FLAG	782086.1	3325857.9	90 04 29.86520	30 01 52.63592	3679014.9	559056.9
FLAG	782087.2	3325853.9	90 04 29.82876	30 01 52.50580	3679018.2	559043.8
FLAG	782087.4	3325849.6	90 04 29.82711	30 01 52.36375	3679018.5	559029.5
FLAG	782087.5	3325847.1	90 04 29.82584	30 01 52.28401	3679018.7	559021.4
FLAG	782095.3	3325860.8	90 04 29.52234	30 01 52.72161	3679044.9	559065.9
FLAG	782107.0	3325848.4	90 04 29.09651	30 01 52.30954	3679082.8	559024.7
FLAG	782323.8	3325637.4	90 04 21.21247	30 01 45.28369	3679783.6	558322.6
FOUNTAIN	781510.3	3325425.9	90 04 51.74878	30 01 39.09464	3677106.4	557668.0
GAS	782048.1	3325759.4	90 04 31.37610	30 01 49.47091	3678885.6	558735.8
GAS	782056.3	3325762.9	90 04 31.06898	30 01 49.57638	3678912.5	558746.7
GAS	782068.2	3325767.7	90 04 30.62226	30 01 49.72397	3678951.6	558762.1
GAS	782073.0	3325769.9	90 04 30.43891	30 01 49.78973	3678967.6	558768.9
GAS	782078.3	3325772.0	90 04 30.23838	30 01 49.85491	3678985.2	558775.7
GAS	782085.8	3325775.1	90 04 29.95747	30 01 49.94807	3679009.7	558785.3
GAS	782085.8	3325804.7	90 04 29.92835	30 01 50.90975	3679011.2	558882.5
GAS	782087.5	3325799.6	90 04 29.86896	30 01 50.74421	3679016.6	558865.8
GAS	782089.6	3325794.0	90 04 29.79899	30 01 50.56045	3679023.0	558847.3
GAS	782091.7	3325787.2	90 04 29.72533	30 01 50.33719	3679029.7	558824.9
GAS	782092.7	3325783.5	90 04 29.69023	30 01 50.21495	3679032.9	558812.6
GAS	782094.0	3325778.2	90 04 29.65000	30 01 50.04240	3679036.7	558795.2
GAS	782095.9	3325808.3	90 04 29.54809	30 01 51.01781	3679044.5	558893.8
GAS	782107.6	3325812.4	90 04 29.10979	30 01 51.14293	3679082.9	558906.8
GAS	782128.8	3325819.5	90 04 28.31197	30 01 51.35478	3679152.8	558929.0
GAS	782137.5	3325822.3	90 04 27.98362	30 01 51.43825	3679181.6	558937.8
GAS	782140.9	3325811.9	90 04 27.86736	30 01 51.09671	3679192.2	558903.4
GAS	782144.6	3325800.9	90 04 27.73808	30 01 50.73835	3679203.9	558867.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
GAS	782148.1	3325789.9	90 04 27.61802	30 01 50.37870	3679214.9	558831.1
GAS	782151.3	3325780.3	90 04 27.50796	30 01 50.06353	3679224.9	558799.4
GAS VALVE	782119.5	3325816.6	90 04 28.65913	30 01 51.26706	3679122.4	558919.8
GRATE	779992.2	3325157.3	90 05 48.61067	30 01 31.63423	3672116.6	556860.2
GRATE	780034.8	3325424.2	90 05 46.77043	30 01 40.25881	3672269.0	557733.1
GRATE	780231.1	3325497.9	90 05 39.38049	30 01 42.48858	3672916.1	557965.3
GRATE	780747.0	3325393.1	90 05 20.24130	30 01 38.66135	3674602.5	557597.0
GRATE	780747.4	3325393.3	90 05 20.22760	30 01 38.66796	3674603.7	557597.7
GRATE	780965.4	3325342.1	90 05 12.14581	30 01 36.82635	3675316.1	557419.4
GRATE	781291.9	3325366.1	90 04 59.94777	30 01 37.33751	3676387.7	557482.7
GRATE	781433.0	3325320.4	90 04 54.72981	30 01 35.73711	3676848.1	557326.0
GRATE	781518.0	3325337.3	90 04 51.54667	30 01 36.21368	3677127.4	557377.2
GRATE	781651.5	3325473.6	90 04 46.43904	30 01 40.52791	3677571.5	557817.9
GRATE	781651.6	3325464.9	90 04 46.44153	30 01 40.24598	3677571.6	557789.4
GRATE	781655.4	3325457.1	90 04 46.30894	30 01 39.98710	3677583.6	557763.4
GRATE	781657.0	3325452.2	90 04 46.25316	30 01 39.82671	3677588.6	557747.3
GRATE	781658.6	3325447.8	90 04 46.19732	30 01 39.68261	3677593.7	557732.8
GRATE	781660.4	3325480.7	90 04 46.09865	30 01 40.75005	3677601.2	557840.7
GRATE	781660.6	3325442.6	90 04 46.13061	30 01 39.51334	3677599.8	557715.7
GRATE	781668.9	3325485.6	90 04 45.77786	30 01 40.90322	3677629.2	557856.5
GRATE	782031.1	3325886.0	90 04 31.88932	30 01 53.59358	3678835.9	559151.7
GRATE	782071.9	3325874.3	90 04 30.38048	30 01 53.17836	3678969.0	559111.2
HUMP	781974.8	3325827.2	90 04 34.04598	30 01 51.73073	3678648.4	558961.5
HUMP	782064.9	3325792.1	90 04 30.71923	30 01 50.51784	3678942.2	558842.2
HYDRANT	780133.7	3325452.8	90 05 43.05394	30 01 41.10519	3672594.7	557822.1
HYDRANT	781515.6	3325420.5	90 04 51.55626	30 01 38.91732	3677123.5	557650.3
LAMP	779710.9	3325096.5	90 05 59.15497	30 01 29.89419	3671191.7	556674.4
LAMP	779743.2	3325124.3	90 05 57.92397	30 01 30.76853	3671298.9	556763.9
LAMP	779777.7	3325153.8	90 05 56.61117	30 01 31.69807	3671413.3	556859.0
LAMP	779813.1	3325189.2	90 05 55.25810	30 01 32.81737	3671531.0	556973.4
LAMP	779836.7	3325239.7	90 05 54.33105	30 01 34.43711	3671610.7	557137.9
LAMP	780033.0	3325436.4	90 05 46.82299	30 01 40.65566	3672263.9	557773.1
LAMP	780039.2	3325407.7	90 05 46.62064	30 01 39.72086	3672282.7	557678.9
LAMP	780048.0	3325382.4	90 05 46.31549	30 01 38.89357	3672310.4	557595.6
LAMP	780098.2	3325479.8	90 05 44.35178	30 01 42.01172	3672479.6	557912.5
LAMP	780146.6	3325454.0	90 05 42.57144	30 01 41.13504	3672637.1	557825.6
LAMP	780204.8	3325461.8	90 05 40.39303	30 01 41.33983	3672828.3	557848.3
LAMP	780282.2	3325471.8	90 05 37.49801	30 01 41.59899	3673082.5	557877.3
LAMP	780389.2	3325497.3	90 05 33.48449	30 01 42.34031	3673434.5	557956.0
LAMP	780460.4	3325504.9	90 05 30.82409	30 01 42.52646	3673668.1	557977.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
LAMP	780574.2	3325477.3	90 05 26.60367	30 01 41.53637	3674040.1	557881.3
LAMP	780765.7	3325454.9	90 05 19.48727	30 01 40.65110	3674666.6	557798.7
LAMP	780770.5	3325417.4	90 05 19.34208	30 01 39.43075	3674680.7	557675.6
LAMP	780794.8	3325444.1	90 05 18.40950	30 01 40.27656	3674761.7	557761.9
LAMP	780813.4	3325402.7	90 05 17.75720	30 01 38.91838	3674820.6	557625.3
LAMP	780845.0	3325378.7	90 05 16.59975	30 01 38.11447	3674923.2	557545.2
LAMP	780873.2	3325411.2	90 05 15.51854	30 01 39.14438	3675017.1	557650.3
LAMP	780893.7	3325362.4	90 05 14.80173	30 01 37.54428	3675081.9	557489.3
LAMP	780893.8	3325362.1	90 05 14.79742	30 01 37.53727	3675082.2	557488.6
LAMP	780928.3	3325369.4	90 05 13.50530	30 01 37.74303	3675195.6	557510.7
LAMP	780963.6	3325306.8	90 05 12.24618	30 01 35.68400	3675308.5	557303.9
LAMP	780963.8	3325306.6	90 05 12.23828	30 01 35.67853	3675309.2	557303.3
LAMP	780982.3	3325348.9	90 05 11.50996	30 01 37.03356	3675371.7	557440.9
LAMP	781038.4	3325342.1	90 05 09.42309	30 01 36.76776	3675555.5	557416.0
LAMP	781259.2	3325323.9	90 05 01.20712	30 01 35.99360	3676278.5	557345.7
LAMP	781277.2	3325178.0	90 05 00.67671	30 01 31.24437	3676330.3	556866.5
LAMP	781278.3	3325110.1	90 05 00.70009	30 01 29.04152	3676330.7	556644.0
LAMP	781279.4	3325075.6	90 05 00.69334	30 01 27.92158	3676332.5	556530.8
LAMP	781293.9	3325312.6	90 04 59.92520	30 01 35.60039	3676391.6	557307.2
LAMP	781301.5	3325203.9	90 04 59.74496	30 01 32.06739	3676411.3	556950.5
LAMP	781301.8	3325093.6	90 04 59.83860	30 01 28.48683	3676407.0	556588.8
LAMP	781404.7	3325353.3	90 04 55.75393	30 01 36.82847	3676756.9	557435.3
LAMP	781411.4	3325392.4	90 04 55.46900	30 01 38.09026	3676780.5	557563.0
LAMP	781431.5	3325201.7	90 04 54.89860	30 01 31.88836	3676837.5	556937.1
LAMP	781432.9	3325316.8	90 04 54.73773	30 01 35.62099	3676847.5	557314.3
LAMP	781445.2	3325425.2	90 04 54.17750	30 01 39.12593	3676892.9	557668.9
LAMP	781454.3	3325356.6	90 04 53.90328	30 01 36.89298	3676919.5	557443.6
LAMP	781474.5	3325397.2	90 04 53.11258	30 01 38.19327	3676987.5	557575.7
LAMP	781482.2	3325447.1	90 04 52.77711	30 01 39.80792	3677015.2	557739.1
LAMP	781496.4	3325437.1	90 04 52.25721	30 01 39.47203	3677061.3	557705.7
LAMP	781985.2	3325791.7	90 04 33.69430	30 01 50.57123	3678680.6	558844.7
LAMP	782016.9	3325811.9	90 04 32.49253	30 01 51.19982	3678785.5	558909.3
LAMP	782020.6	3325832.7	90 04 32.33219	30 01 51.87163	3678798.9	558977.3
LAMP	782061.3	3325810.8	90 04 30.83675	30 01 51.12785	3678931.2	558903.7
LAMP	782069.6	3325834.4	90 04 30.50635	30 01 51.88689	3678959.3	558980.6
LAMP	782082.3	3325867.9	90 04 29.99731	30 01 52.96263	3679002.9	559089.8
LAMP	782098.3	3325823.4	90 04 29.44500	30 01 51.50519	3679053.1	558943.1
LAMP POLE	781652.5	3325379.3	90 04 46.49034	30 01 37.46670	3677570.4	557508.6
LAMP POLE	782004.8	3325854.6	90 04 32.89993	30 01 52.59471	3678748.2	559049.8
METAL VAULT	780545.6	3325535.1	90 05 27.61758	30 01 43.43649	3673948.9	558072.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
METL GRATE	781468.7	3325419.9	90 04 53.30592	30 01 38.93425	3676969.7	557650.3
MH	780053.5	3325323.2	90 05 46.16662	30 01 36.96707	3672325.6	557401.2
MH	780377.0	3325498.3	90 05 33.93711	30 01 42.38057	3673394.6	557959.6
MH DRAIN	779835.6	3325239.4	90 05 54.37191	30 01 34.42678	3671607.2	557136.8
MH DRAIN	779955.3	3325107.1	90 05 50.03466	30 01 30.03490	3671993.2	556697.3
MH DRAIN	780766.8	3325457.7	90 05 19.44251	30 01 40.74391	3674670.4	557808.1
MH DRAIN	781439.2	3325162.4	90 04 54.64933	30 01 30.60627	3676860.8	556807.8
MH NOPSI	779779.8	3325154.7	90 05 56.53200	30 01 31.72613	3671420.2	556861.9
MH NOPSI	779958.9	3325130.4	90 05 49.87621	30 01 30.78822	3672006.3	556773.5
MH NOPSI	780008.3	3325210.3	90 05 47.95994	30 01 33.34029	3672171.9	557033.1
MH NOPSI	780130.5	3325455.1	90 05 43.16937	30 01 41.18377	3672584.5	557829.9
MH NOPSI	780190.5	3325463.1	90 05 40.92791	30 01 41.39460	3672781.3	557853.4
MH NOPSI	780278.0	3325474.4	90 05 37.65374	30 01 41.68619	3673068.7	557885.9
MH NOPSI	780481.8	3325498.1	90 05 30.03011	30 01 42.28932	3673738.1	557954.1
MH NOPSI	780550.9	3325491.9	90 05 27.45878	30 01 42.03090	3673964.4	557930.5
MH NOPSI	780629.6	3325440.1	90 05 24.57599	30 01 40.28344	3674219.7	557756.7
MH NOPSI	780677.2	3325428.1	90 05 22.81008	30 01 39.85588	3674375.4	557715.2
MH NOPSI	781288.1	3325178.7	90 05 00.26881	30 01 31.26003	3676366.2	556868.5
MH NOPSI	781290.2	3325086.7	90 05 00.28026	30 01 28.27377	3676368.5	556566.8
MH SD	780911.3	3325405.6	90 05 14.10506	30 01 38.93264	3675141.6	557630.2
MH SEWER	779687.5	3325078.6	90 06 00.04522	30 01 29.33071	3671114.0	556616.7
MH SEWER	780449.8	3325543.6	90 05 31.17955	30 01 43.79133	3673635.5	558104.7
MH SEWER	780450.1	3325540.3	90 05 31.17396	30 01 43.68514	3673636.1	558094.0
MH SEWER	780456.4	3325502.7	90 05 30.97517	30 01 42.46006	3673654.9	557970.5
MH WATER	780155.0	3325451.9	90 05 42.26184	30 01 41.05918	3672664.4	557818.2
MH WATER	780223.3	3325460.8	90 05 39.70700	30 01 41.28999	3672888.7	557844.0
MH WATER	780400.3	3325495.2	90 05 33.07214	30 01 42.26148	3673470.8	557948.4
MH WATER	780400.4	3325494.9	90 05 33.06899	30 01 42.25193	3673471.1	557947.4
MH WATER	780593.8	3325460.2	90 05 25.88928	30 01 40.96601	3674103.5	557824.4
MH WATER	780595.5	3325458.5	90 05 25.82869	30 01 40.90951	3674108.9	557818.7
NOPSI	781941.8	3325813.9	90 04 35.28822	30 01 51.32911	3678539.7	558919.7
PARK	782018.3	3325840.6	90 04 32.41128	30 01 52.13118	3678791.6	559003.5
PARK	782023.5	3325831.4	90 04 32.22809	30 01 51.82724	3678808.1	558973.0
PARK	782029.1	3325832.9	90 04 32.01583	30 01 51.87235	3678826.7	558977.7
POST	782008.0	3325856.5	90 04 32.77965	30 01 52.65528	3678758.7	559056.1
POST	782009.0	3325857.3	90 04 32.74205	30 01 52.68016	3678762.0	559058.6
POST	782010.2	3325858.2	90 04 32.69872	30 01 52.70854	3678765.7	559061.5
POST	782011.5	3325858.9	90 04 32.64599	30 01 52.72903	3678770.4	559063.7
POST	782012.1	3325859.8	90 04 32.62552	30 01 52.75906	3678772.1	559066.7
POST	782015.9	3325863.1	90 04 32.47806	30 01 52.86295	3678785.0	559077.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
POST METAL	780808.2	3325421.7	90 05 17.93404	30 01 39.54012	3674804.3	557688.0
POST METAL	780812.7	3325431.5	90 05 17.75403	30 01 39.85581	3674819.8	557720.0
PVC POST	781707.5	3325633.2	90 04 44.19825	30 01 45.65743	3677762.8	558338.2
PVC POST CC	781749.7	3325717.2	90 04 42.54520	30 01 48.35083	3677905.1	558611.9
PVC POST CC	781787.2	3325802.5	90 04 41.06576	30 01 51.08708	3678032.1	558889.7
PVC POST CC	781832.7	3325841.5	90 04 39.32983	30 01 52.31494	3678183.4	559015.4
PVC POST CC	781894.6	3325859.7	90 04 37.00730	30 01 52.85252	3678386.9	559071.9
ROAD	782030.3	3325816.7	90 04 31.98588	30 01 51.34601	3678829.9	558924.6
ROAD	782033.8	3325800.2	90 04 31.87306	30 01 50.80841	3678840.4	558870.4
ROAD	782035.2	3325820.5	90 04 31.80126	30 01 51.46297	3678846.0	558936.6
ROAD	782073.0	3325817.3	90 04 30.39281	30 01 51.33037	3678969.9	558924.5
ROAD	782103.0	3325827.3	90 04 29.26708	30 01 51.62850	3679068.6	558955.7
ROAD	782115.0	3325831.3	90 04 28.81452	30 01 51.74879	3679108.2	558968.3
SIDEWALK	781566.2	3325340.2	90 04 49.74538	30 01 36.26817	3677285.6	557384.5
SIDEWALK	781566.9	3325345.5	90 04 49.71676	30 01 36.44006	3677288.0	557401.8
SIDEWALK	781572.8	3325347.4	90 04 49.49222	30 01 36.49848	3677307.6	557408.0
SIDEWALK	781609.7	3325358.9	90 04 48.10520	30 01 36.83823	3677429.2	557443.6
SIDEWALK	781667.6	3325402.4	90 04 45.90697	30 01 38.20176	3677620.9	557583.5
SIDEWALK	781709.0	3325644.8	90 04 44.13184	30 01 46.03371	3677768.2	558376.3
SIDEWALK	781719.5	3325639.5	90 04 43.74616	30 01 45.85245	3677802.3	558358.3
SIDEWALK	781733.3	3325630.9	90 04 43.23967	30 01 45.56421	3677847.2	558329.7
SIG LIGHT	782089.5	3325842.2	90 04 29.75483	30 01 52.12406	3679025.1	559005.3
SIGN	779723.9	3325106.8	90 05 58.66136	30 01 30.21766	3671234.7	556707.6
SIGN	781032.1	3325291.4	90 05 09.70833	30 01 35.12776	3675532.2	557250.1
SIGN	781274.0	3325322.7	90 05 00.65761	30 01 35.94463	3676326.8	557341.3
SIGN	781287.9	3325082.6	90 05 00.36890	30 01 28.14282	3676360.8	556553.5
SIGN	782017.4	3325863.4	90 04 32.42504	30 01 52.87190	3678789.6	559078.3
SIGN	782033.1	3325823.3	90 04 31.87659	30 01 51.55705	3678839.3	558946.0
SIGN	782039.4	3325830.7	90 04 31.63469	30 01 51.79066	3678860.3	558969.8
SIGN	782039.9	3325830.6	90 04 31.61749	30 01 51.78797	3678861.8	558969.6
SIGN POST	781585.2	3325341.4	90 04 49.03684	30 01 36.29077	3677347.9	557387.4
SS	781993.8	3325795.3	90 04 33.36924	30 01 50.68147	3678709.1	558856.1
SS	782012.2	3325849.3	90 04 32.63248	30 01 52.41785	3678771.9	559032.2
SS	782088.9	3325822.8	90 04 29.79635	30 01 51.49333	3679022.2	558941.6
SS DRAIN	779712.9	3325099.3	90 05 59.07825	30 01 29.98283	3671198.3	556683.4
SS GRATE	781954.2	3325787.8	90 04 34.85095	30 01 50.47020	3678579.1	558833.4
SS GRATE	782092.7	3325812.1	90 04 29.66623	30 01 51.14567	3679034.0	558906.6
SS INLET	779680.7	3325071.5	90 06 00.30624	30 01 29.10540	3671091.3	556593.6
SS INLET	779752.5	3325133.1	90 05 57.57073	30 01 31.04694	3671329.7	556792.4
SS INLET	779790.4	3325165.2	90 05 56.12596	30 01 32.05600	3671455.6	556895.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
SS INLET	779822.9	3325206.6	90 05 54.87696	30 01 33.37315	3671563.9	557029.9
SS INLET	779840.2	3325252.2	90 05 54.18739	30 01 34.83822	3671622.9	557178.5
SS INLET	779965.9	3325106.1	90 05 49.64060	30 01 29.99438	3672027.9	556693.5
SS INLET	780034.7	3325426.8	90 05 46.76932	30 01 40.34418	3672269.0	557741.7
SS INLET	780036.0	3325206.5	90 05 46.93106	30 01 33.19506	3672262.5	557019.4
SS INLET	780061.6	3325322.6	90 05 45.86697	30 01 36.93912	3672352.0	557398.6
SS INLET	780812.1	3325403.1	90 05 17.80639	30 01 38.93327	3674816.2	557626.8
SS INLET	780914.1	3325344.2	90 05 14.05625	30 01 36.93699	3675148.0	557428.7
SS INLET	780914.2	3325344.5	90 05 14.05388	30 01 36.94681	3675148.2	557429.7
SS INLET	780946.4	3325317.0	90 05 12.87780	30 01 36.02910	3675252.6	557338.1
SS INLET	780946.5	3325316.9	90 05 12.87659	30 01 36.02716	3675252.7	557337.9
SS INLET	781270.1	3325322.4	90 05 00.80544	30 01 35.93722	3676313.8	557340.4
SS INLET	781277.9	3325101.3	90 05 00.72247	30 01 28.75514	3676329.1	556615.0
SS INLET	781286.0	3325190.1	90 05 00.33592	30 01 31.63242	3676359.9	556906.0
SS INLET	782022.5	3325857.4	90 04 32.23990	30 01 52.67217	3678806.1	559058.3
SS INLETS	782078.3	3325836.0	90 04 30.17711	30 01 51.93096	3678988.2	558985.4
SS INLT	781431.0	3325212.4	90 04 54.91018	30 01 32.23536	3676836.1	556972.1
SS INLT	781432.6	3325264.3	90 04 54.79955	30 01 33.91556	3676844.0	557142.0
SS INLT	781437.4	3325162.3	90 04 54.71713	30 01 30.60226	3676854.9	556807.4
SS INLT	781440.5	3325316.6	90 04 54.45522	30 01 35.60641	3676872.4	557313.1
SS INLT	781494.1	3325418.9	90 04 52.35789	30 01 38.88223	3677053.1	557646.0
STAIRS	780904.8	3325351.7	90 05 14.39597	30 01 37.18961	3675117.9	557453.9
STAIRS	780905.1	3325351.6	90 05 14.38580	30 01 37.18530	3675118.8	557453.5
STAIRS	780922.2	3325371.1	90 05 13.73161	30 01 37.80385	3675175.6	557516.6
STAIRS	781001.9	3325294.7	90 05 10.82974	30 01 35.25989	3675433.5	557262.4
STAIRS	781002.6	3325294.3	90 05 10.80614	30 01 35.24524	3675435.6	557260.9
STAIRS	781006.3	3325321.9	90 05 10.63970	30 01 36.13853	3675449.2	557351.3
STORM DRAIN	782011.9	3325848.8	90 04 32.64107	30 01 52.40256	3678771.2	559030.7
STORM DRAIN	782022.1	3325857.1	90 04 32.25233	30 01 52.66319	3678805.0	559057.4
TABLE	781528.5	3325424.7	90 04 51.07145	30 01 39.04129	3677166.0	557663.3
TREE	781955.9	3325804.4	90 04 34.77346	30 01 51.00714	3678585.3	558887.7
TREE	781962.7	3325786.0	90 04 34.53840	30 01 50.40475	3678606.6	558827.0
TREE	781989.5	3325808.1	90 04 33.51704	30 01 51.09923	3678695.6	558898.2
TREE	781993.1	3325810.0	90 04 33.37901	30 01 51.15775	3678707.7	558904.2
TREE	782064.0	3325766.4	90 04 30.77941	30 01 49.68367	3678937.8	558757.8
TREES	781940.2	3325797.6	90 04 35.36347	30 01 50.79955	3678533.6	558866.1
VALVE NOPSI	781286.9	3325097.4	90 05 00.39217	30 01 28.62096	3676358.2	556601.8
VALVE NOPSI	781292.1	3325091.8	90 05 00.20179	30 01 28.43677	3676375.2	556583.4
VALVE WATER	780533.7	3325492.6	90 05 28.10256	30 01 42.06677	3673907.8	557933.5
VALVE WATER	780633.2	3325434.8	90 05 24.44514	30 01 40.11107	3674231.4	557739.4

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
VAULT	780485.5	3325539.4	90 05 29.85460	30 01 43.62465	3673752.1	558089.2
VAULT EX	780090.3	3325445.1	90 05 44.68083	30 01 40.89051	3672451.9	557798.9
VAULT EX	780096.3	3325478.5	90 05 44.42456	30 01 41.97017	3672473.3	557908.2
VAULT EX	780100.8	3325471.9	90 05 44.26227	30 01 41.75344	3672487.8	557886.5
VAULT EX	780101.6	3325447.0	90 05 44.25794	30 01 40.94507	3672489.0	557804.8
VAULT EX	780115.9	3325448.4	90 05 43.72160	30 01 40.97760	3672536.2	557808.6
VAULT EX	780177.5	3325457.3	90 05 41.41679	30 01 41.21498	3672738.5	557834.8
VAULT EX	780283.7	3325470.5	90 05 37.44528	30 01 41.55587	3673087.2	557873.0
VAULT EX	780392.2	3325496.5	90 05 33.37464	30 01 42.30992	3673444.1	557953.0
VERT PIPE	781516.9	3325423.6	90 04 51.50676	30 01 39.01745	3677127.8	557660.5
W VALVE	781953.9	3325786.1	90 04 34.86606	30 01 50.41697	3678577.8	558828.0
WALL	782136.0	3325834.7	90 04 28.02978	30 01 51.84301	3679177.1	558978.6
WALL	782148.3	3325799.0	90 04 27.60336	30 01 50.67168	3679215.8	558860.7
WALL END	782153.6	3325782.4	90 04 27.42182	30 01 50.13025	3679232.4	558806.2
WELL	782109.6	3325756.5	90 04 29.08732	30 01 49.32641	3679086.9	558723.4
WX	782126.8	3325832.9	90 04 28.37267	30 01 51.79181	3679147.0	558973.1

Note: NAD83.

Table A4. LPV104 flagged anomalies and utility locations.

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
ANOMALY	783835.0	3326081.0	90 03 24.43910	30 01 58.41854	3684758.8	559704.6
ANOMALY	783839.0	3326065.0	90 03 24.30530	30 01 57.89607	3684771.2	559652.0
ANOMALY	783860.0	3326061.0	90 03 23.52607	30 01 57.74876	3684839.8	559637.9
ANOMALY	783879.0	3326063.0	90 03 22.81567	30 01 57.79778	3684902.2	559643.5
ANOMALY	783896.0	3326066.0	90 03 22.17888	30 01 57.88092	3684958.1	559652.6
ANOMALY	783916.0	3326068.0	90 03 21.43118	30 01 57.92911	3685023.8	559658.2
ANOMALY	783938.0	3326071.0	90 03 20.60795	30 01 58.00807	3685096.0	559666.9
ANOMALY	783951.0	3326072.0	90 03 20.12224	30 01 58.02966	3685138.7	559669.6
ANOMALY	783970.0	3326075.0	90 03 19.41087	30 01 58.11113	3685201.1	559678.5
ANOMALY	783999.0	3326078.0	90 03 18.32662	30 01 58.18424	3685296.3	559687.0
ANOMALY	784012.0	3326080.0	90 03 17.83995	30 01 58.23827	3685339.0	559692.9
ANOMALY ARE	785584.8	3325944.1	90 02 19.32396	30 01 52.51142	3690488.6	559172.2
ASPHALT	782923.9	3326010.4	90 03 58.48065	30 01 56.88734	3681768.6	559516.8
ASPHALT	782928.2	3326006.8	90 03 58.32375	30 01 56.76696	3681782.5	559504.8
ASPHALT	782931.1	3326008.5	90 03 58.21398	30 01 56.81970	3681792.1	559510.2
ASPHALT	782963.9	3325970.5	90 03 57.02725	30 01 55.55947	3681897.8	559384.1
ASPHALT	782970.3	3325969.9	90 03 56.78918	30 01 55.53467	3681918.8	559381.8
ASPHALT	782974.4	3325969.0	90 03 56.63716	30 01 55.50206	3681932.2	559378.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
ASPHALT EDG	785359.8	3326172.3	90 02 27.49354	30 02 00.10428	3689761.9	559931.0
ASPHALT ROAD	785352.5	3326075.0	90 02 27.85961	30 01 56.95352	3689733.3	559612.4
BUSH END	785554.7	3325909.0	90 02 20.48020	30 01 51.39788	3690388.3	559058.5
BUSH END	785576.5	3325908.4	90 02 19.66791	30 01 51.36011	3690459.7	559055.5
CABLE DIG H	785579.6	3325961.8	90 02 19.50077	30 01 53.09006	3690472.4	559230.4
CABLE DIG H	785586.6	3325996.4	90 02 19.20635	30 01 54.20677	3690497.0	559343.5
CABLE TRASH	785561.3	3325940.3	90 02 20.20389	30 01 52.40787	3690411.4	559160.8
CENTER LINE	783214.5	3326054.3	90 03 47.60246	30 01 58.06974	3682723.4	559646.8
CONCRETE	783140.4	3326061.1	90 03 50.35906	30 01 58.35209	3682480.8	559672.6
CONCRETE	784987.1	3326269.5	90 02 41.29733	30 02 03.57059	3688544.8	560267.5
CONCRETE SL	785029.1	3326284.7	90 02 39.71655	30 02 04.02854	3688683.2	560315.3
CONCRETE WA	785139.5	3326281.9	90 02 35.60255	30 02 03.84511	3689045.0	560300.9
CONDUIT	785112.8	3326273.5	90 02 36.60626	30 02 03.59496	3688957.0	560274.6
CURB	785222.3	3326200.6	90 02 32.59342	30 02 01.13787	3689312.5	560030.4
CURB	785225.1	3326194.1	90 02 32.49528	30 02 00.92462	3689321.4	560008.9
CURB	785243.0	3326194.2	90 02 31.82772	30 02 00.91285	3689380.1	560008.4
CURB	785249.5	3326186.9	90 02 31.59238	30 02 00.67055	3689401.0	559984.2
CURB	785264.6	3326156.5	90 02 31.05864	30 01 59.67155	3689449.1	559883.8
CURB	785266.2	3326181.8	90 02 30.97458	30 02 00.49107	3689455.5	559966.7
CURB	785274.2	3326184.2	90 02 30.67396	30 02 00.56222	3689481.9	559974.1
CURB	785274.7	3326176.9	90 02 30.66236	30 02 00.32495	3689483.2	559950.2
CURB	785277.2	3326158.3	90 02 30.58707	30 01 59.71938	3689490.5	559889.1
CURB	785277.7	3326173.0	90 02 30.55425	30 02 00.19590	3689492.8	559937.3
CURB	785279.7	3326166.8	90 02 30.48565	30 01 59.99306	3689499.1	559916.8
CURB	785280.2	3326162.0	90 02 30.47164	30 01 59.83691	3689500.5	559901.1
CURB	785281.3	3326179.9	90 02 30.41336	30 02 00.41675	3689504.9	559959.7
CURB	785284.8	3326172.0	90 02 30.29047	30 02 00.15750	3689516.0	559933.6
CURB	785286.7	3326166.1	90 02 30.22531	30 01 59.96448	3689522.0	559914.2
CURB	785287.0	3326158.7	90 02 30.22126	30 01 59.72413	3689522.6	559889.9
CURB	785292.6	3326158.7	90 02 30.01244	30 01 59.71943	3689541.0	559889.7
DIG SPOT	785595.4	3325986.0	90 02 18.88826	30 01 53.86195	3690525.4	559309.0
DRAIN	782305.4	3325882.0	90 04 21.66650	30 01 53.23546	3679734.8	559125.4
DRAIN	782472.4	3325931.3	90 04 15.39220	30 01 54.69633	3680284.6	559279.0
DRAIN	782931.0	3325995.1	90 03 58.23053	30 01 56.38501	3681791.1	559466.3
DRAIN	784206.2	3326202.1	90 03 10.48117	30 02 02.03754	3685981.5	560083.9
DRAIN	784233.9	3326203.7	90 03 09.44672	30 02 02.06630	3686072.4	560087.8
DRAIN	785524.6	3325885.6	90 02 21.62514	30 01 50.66395	3690288.5	558983.3
DRAIN	785573.8	3325900.3	90 02 19.77640	30 01 51.09957	3690450.5	559029.1
DRAIN	785573.9	3325901.3	90 02 19.77171	30 01 51.13193	3690450.8	559032.4
DRAIN W/ PI	785330.6	3326205.3	90 02 28.55053	30 02 01.19948	3689667.8	560040.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
DRIVE	783024.9	3325996.7	90 03 54.72757	30 01 56.35877	3682099.0	559467.0
DRIVE	783040.2	3325975.9	90 03 54.17695	30 01 55.67116	3682148.2	559398.1
DRIVE	783054.6	3325953.6	90 03 53.66133	30 01 54.93563	3682194.4	559324.3
DRIVE EDGE	785338.1	3326117.3	90 02 28.35576	30 01 58.33802	3689688.1	559751.8
DRIVE EDGE	785351.6	3326110.4	90 02 27.85902	30 01 58.10282	3689732.1	559728.5
DRIVE EDGE	785352.8	3326118.5	90 02 27.80646	30 01 58.36462	3689736.4	559755.0
DRIVE EDGE	785373.7	3326115.9	90 02 27.02964	30 01 58.26272	3689804.8	559745.5
ELEC CABLE	785599.8	3325988.1	90 02 18.72217	30 01 53.92639	3690539.9	559315.7
ELEC CABLE	785604.3	3325993.3	90 02 18.54935	30 01 54.09133	3690554.9	559332.5
ERDC UTILITY	785131.5	3326277.2	90 02 35.90539	30 02 03.69933	3689018.5	560285.8
ERDC WATER	785187.9	3326269.0	90 02 33.81020	30 02 03.38597	3689203.0	560256.3
FENCE	782999.0	3325963.8	90 03 55.72483	30 01 55.31287	3682012.6	559360.4
FENCE	783010.2	3325935.3	90 03 55.33446	30 01 54.37884	3682047.9	559266.4
FENCE	785323.0	3326203.1	90 02 28.83605	30 02 01.13448	3689642.7	560033.8
FENCE	785331.7	3326205.8	90 02 28.50903	30 02 01.21478	3689671.4	560042.2
FENCE	785338.6	3326193.7	90 02 28.26341	30 02 00.81640	3689693.4	560002.2
FENCE	785356.8	3326131.6	90 02 27.64467	30 01 58.78629	3689750.1	559797.7
FENCE	785404.7	3326040.8	90 02 25.94617	30 01 55.80008	3689902.8	559497.8
FENCE	785407.3	3326036.8	90 02 25.85308	30 01 55.66812	3689911.2	559484.6
FENCE	785474.0	3325968.2	90 02 23.43217	30 01 53.38639	3690126.5	559256.5
FENCE	785509.3	3325955.8	90 02 22.12788	30 01 52.95443	3690241.7	559214.1
FENCE	785523.4	3325965.8	90 02 21.59247	30 01 53.26704	3690288.4	559246.2
FENCE	785540.6	3325986.7	90 02 20.93095	30 01 53.93070	3690345.7	559313.9
FENCE END W	785367.8	3326110.7	90 02 27.25466	30 01 58.09896	3689785.2	559728.7
FENCE LINE	785319.6	3326209.4	90 02 28.95675	30 02 01.34173	3689631.9	560054.6
FIRE HYDRAN	785502.3	3325884.5	90 02 22.45771	30 01 50.64699	3690215.3	558980.7
FLAG	782329.8	3325876.9	90 04 20.76152	30 01 53.04972	3679814.6	559107.5
FLAG	782332.4	3325872.3	90 04 20.66896	30 01 52.89831	3679822.9	559092.3
FLAG	782341.3	3325852.6	90 04 20.35589	30 01 52.25174	3679851.1	559027.3
FLAG	782341.4	3325878.4	90 04 20.32754	30 01 53.08876	3679852.7	559111.9
FLAG	782342.3	3325850.0	90 04 20.32108	30 01 52.16655	3679854.3	559018.7
FLAG	782343.8	3325872.9	90 04 20.24329	30 01 52.90831	3679860.3	559093.7
FLAG	782344.0	3325847.0	90 04 20.26055	30 01 52.06780	3679859.7	559008.8
FLAG	782345.8	3325843.0	90 04 20.19725	30 01 51.93652	3679865.4	558995.6
FLAG	782349.0	3325854.3	90 04 20.06714	30 01 52.30050	3679876.4	559032.5
FLAG	782349.9	3325851.5	90 04 20.03626	30 01 52.20891	3679879.2	559023.3
FLAG	782350.5	3325847.8	90 04 20.01741	30 01 52.08836	3679881.0	559011.1
FLAG	782350.7	3325844.6	90 04 20.01301	30 01 51.98436	3679881.5	559000.6
FLAG	782438.2	3325913.1	90 04 16.68485	30 01 54.13423	3680171.7	559221.0
FLAG	782470.3	3325923.8	90 04 15.47766	30 01 54.45473	3680277.4	559254.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	782478.0	3325926.6	90 04 15.18787	30 01 54.53918	3680302.8	559263.4
FLAG	782491.0	3325930.3	90 04 14.69958	30 01 54.64843	3680345.6	559274.9
FLAG	782492.5	3325921.6	90 04 14.65195	30 01 54.36490	3680350.1	559246.3
FLAG	782493.8	3325916.9	90 04 14.60796	30 01 54.21132	3680354.1	559230.8
FLAG	782494.2	3325910.8	90 04 14.59887	30 01 54.01307	3680355.1	559210.8
FLAG	782515.8	3325931.2	90 04 13.77395	30 01 54.65702	3680426.9	559276.6
FLAG	782529.3	3325947.7	90 04 13.25479	30 01 55.18116	3680472.0	559330.1
FLAG	782531.3	3325938.1	90 04 13.18939	30 01 54.86801	3680478.1	559298.5
FLAG	782538.7	3325944.9	90 04 12.90695	30 01 55.08250	3680502.7	559320.5
FLAG	782554.9	3325933.2	90 04 12.31405	30 01 54.68942	3680555.2	559281.3
FLAG	782574.4	3325956.5	90 04 11.56466	30 01 55.42920	3680620.2	559356.8
FLAG	782591.7	3325961.0	90 04 10.91526	30 01 55.56082	3680677.2	559370.7
FLAG	782602.9	3325922.2	90 04 10.53469	30 01 54.29262	3680712.0	559243.0
FLAG	782603.0	3325965.4	90 04 10.48969	30 01 55.69419	3680714.4	559384.6
FLAG	782608.0	3325962.2	90 04 10.30630	30 01 55.58621	3680730.7	559373.9
FLAG	782614.7	3325968.9	90 04 10.05007	30 01 55.79802	3680753.0	559395.5
FLAG	782616.3	3325959.2	90 04 09.99967	30 01 55.48197	3680757.7	559363.6
FLAG	782618.1	3325938.3	90 04 09.95252	30 01 54.80236	3680762.6	559295.0
FLAG	782619.9	3325936.2	90 04 09.88741	30 01 54.73272	3680768.4	559288.1
FLAG	782621.3	3325930.2	90 04 09.84093	30 01 54.53689	3680772.7	559268.3
FLAG	782637.6	3325975.5	90 04 09.18984	30 01 55.99313	3680828.3	559416.0
FLAG	782658.8	3325982.0	90 04 08.39311	30 01 56.18640	3680898.2	559436.3
FLAG	782666.1	3325984.9	90 04 08.11813	30 01 56.27442	3680922.2	559445.5
FLAG	782673.0	3325957.5	90 04 07.88701	30 01 55.37967	3680943.5	559355.3
FLAG	782673.4	3325959.9	90 04 07.86981	30 01 55.45721	3680945.0	559363.2
FLAG	782677.0	3325994.5	90 04 07.70250	30 01 56.57684	3680958.4	559476.5
FLAG	782683.1	3325989.9	90 04 07.47943	30 01 56.42252	3680978.2	559461.1
FLAG	782699.5	3325995.6	90 04 06.86245	30 01 56.59382	3681032.2	559479.0
FLAG	782706.2	3326014.7	90 04 06.59436	30 01 57.20796	3681055.1	559541.3
FLAG	782712.3	3325998.2	90 04 06.38266	30 01 56.66754	3681074.3	559486.9
FLAG	782714.9	3326014.4	90 04 06.27023	30 01 57.19100	3681083.6	559539.9
FLAG	782717.3	3326000.8	90 04 06.19373	30 01 56.74774	3681090.8	559495.2
FLAG	782720.8	3326014.5	90 04 06.05013	30 01 57.18933	3681103.0	559539.9
FLAG	782724.3	3326003.6	90 04 05.93003	30 01 56.83276	3681113.9	559504.0
FLAG	782724.9	3326013.6	90 04 05.89810	30 01 57.15672	3681116.4	559536.8
FLAG	782728.4	3326011.7	90 04 05.76941	30 01 57.09217	3681127.7	559530.4
FLAG	782731.6	3326005.6	90 04 05.65591	30 01 56.89158	3681137.9	559510.2
FLAG	782734.1	3326001.8	90 04 05.56632	30 01 56.76621	3681146.0	559497.7
FLAG	782743.1	3326009.1	90 04 05.22374	30 01 56.99558	3681175.8	559521.2
FLAG	782766.7	3326016.2	90 04 04.33693	30 01 57.20632	3681253.5	559543.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	782773.4	3326018.6	90 04 04.08480	30 01 57.27861	3681275.6	559550.8
FLAG	782779.4	3326020.7	90 04 03.85906	30 01 57.34176	3681295.4	559557.4
FLAG	782782.8	3325994.9	90 04 03.75694	30 01 56.50183	3681305.3	559472.7
FLAG	782786.0	3326022.2	90 04 03.61152	30 01 57.38494	3681317.1	559562.0
FLAG	782790.9	3326022.7	90 04 03.42832	30 01 57.39708	3681333.2	559563.5
FLAG	782800.3	3326025.0	90 04 03.07561	30 01 57.46389	3681364.1	559570.5
FLAG	782811.5	3326027.4	90 04 02.65568	30 01 57.53244	3681400.9	559577.9
FLAG	782816.3	3326026.2	90 04 02.47784	30 01 57.48952	3681416.6	559573.7
FLAG	782821.8	3326023.5	90 04 02.27533	30 01 57.39734	3681434.5	559564.6
FLAG	782835.8	3326018.5	90 04 01.75806	30 01 57.22346	3681480.2	559547.5
FLAG	782850.8	3326013.6	90 04 01.20341	30 01 57.05200	3681529.1	559530.8
FLAG	782868.9	3326006.0	90 04 00.53575	30 01 56.79035	3681588.1	559505.0
FLAG	782873.9	3325964.4	90 04 00.38908	30 01 55.43645	3681602.5	559368.4
FLAG	782892.6	3325965.9	90 03 59.69035	30 01 55.46956	3681663.9	559372.4
FLAG	782909.9	3325960.2	90 03 59.05070	30 01 55.27022	3681720.3	559352.9
FLAG	782962.0	3325970.6	90 03 57.09801	30 01 55.56429	3681891.6	559384.5
FLAG	782968.8	3325968.9	90 03 56.84607	30 01 55.50348	3681913.8	559378.6
FLAG	782973.4	3325968.1	90 03 56.67531	30 01 55.47369	3681928.8	559375.7
FLAG	782976.3	3325966.6	90 03 56.56860	30 01 55.42261	3681938.3	559370.7
FLAG	782982.3	3325964.1	90 03 56.34726	30 01 55.33650	3681957.8	559362.2
FLAG	782990.8	3325960.2	90 03 56.03404	30 01 55.20289	3681985.5	559349.0
FLAG	783000.7	3325959.5	90 03 55.66555	30 01 55.17193	3682017.9	559346.2
FLAG	783007.2	3325961.5	90 03 55.42126	30 01 55.23141	3682039.3	559352.5
FLAG	783013.2	3325961.2	90 03 55.19781	30 01 55.21669	3682059.0	559351.2
FLAG	783031.2	3325950.8	90 03 54.53657	30 01 54.86427	3682117.5	559316.3
FLAG	783032.2	3326024.7	90 03 54.42857	30 01 57.26117	3682124.3	559558.5
FLAG	783038.1	3326024.8	90 03 54.20847	30 01 57.25950	3682143.7	559558.5
FLAG	783038.2	3325951.1	90 03 54.27526	30 01 54.86817	3682140.5	559316.9
FLAG	783040.5	3325951.0	90 03 54.18959	30 01 54.86301	3682148.0	559316.5
FLAG	783044.2	3325951.3	90 03 54.05134	30 01 54.86967	3682160.1	559317.3
FLAG	783045.6	3326022.3	90 03 53.93119	30 01 57.17214	3682168.1	559550.0
FLAG	783048.8	3325951.2	90 03 53.87990	30 01 54.86259	3682175.2	559316.7
FLAG	783050.5	3325951.2	90 03 53.81651	30 01 54.86118	3682180.8	559316.6
FLAG	783056.3	3325958.1	90 03 53.59363	30 01 55.08022	3682200.1	559339.0
FLAG	783059.1	3326020.9	90 03 53.42913	30 01 57.11548	3682212.3	559544.7
FLAG	783062.6	3325965.5	90 03 53.35163	30 01 55.31508	3682221.1	559362.9
FLAG	783063.5	3326020.0	90 03 53.26592	30 01 57.08261	3682226.7	559541.6
FLAG	783064.1	3325955.2	90 03 53.30556	30 01 54.97964	3682225.6	559329.1
FLAG	783064.7	3325968.3	90 03 53.27065	30 01 55.40417	3682228.2	559372.0
FLAG	783066.9	3325966.1	90 03 53.19072	30 01 55.33096	3682235.3	559364.7

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	783067.3	3326031.7	90 03 53.11303	30 01 57.45906	3682239.7	559579.7
FLAG	783072.4	3326028.5	90 03 52.92592	30 01 57.35099	3682256.3	559569.0
FLAG	783075.2	3326028.2	90 03 52.82180	30 01 57.33893	3682265.5	559567.9
FLAG	783105.2	3326007.5	90 03 51.72294	30 01 56.64232	3682362.8	559498.6
FLAG	783114.4	3326027.5	90 03 51.36074	30 01 57.28357	3682393.9	559563.7
FLAG	783135.5	3326028.7	90 03 50.57279	30 01 57.30493	3682463.2	559566.6
FLAG	783136.5	3326054.7	90 03 50.51062	30 01 58.14769	3682467.7	559651.8
FLAG	783139.8	3326053.4	90 03 50.38881	30 01 58.10276	3682478.4	559647.4
FLAG	783143.1	3326055.1	90 03 50.26413	30 01 58.15517	3682489.3	559652.8
FLAG	783146.6	3326054.6	90 03 50.13409	30 01 58.13603	3682500.8	559651.0
FLAG	783148.8	3326053.9	90 03 50.05273	30 01 58.11149	3682508.0	559648.6
FLAG	783165.9	3326010.9	90 03 49.45625	30 01 56.70208	3682562.0	559506.8
FLAG	783166.9	3326015.4	90 03 49.41465	30 01 56.84725	3682565.5	559521.5
FLAG	783201.5	3326080.2	90 03 48.06242	30 01 58.92091	3682682.0	559732.3
FLAG	783201.8	3326073.9	90 03 48.05726	30 01 58.71625	3682682.7	559711.7
FLAG	783202.7	3326067.4	90 03 48.02993	30 01 58.50461	3682685.3	559690.3
FLAG	783202.7	3326069.8	90 03 48.02763	30 01 58.58247	3682685.4	559698.2
FLAG	783256.9	3326064.0	90 03 46.01212	30 01 58.34913	3682862.8	559676.6
FLAG	783258.7	3326064.3	90 03 45.94471	30 01 58.35737	3682868.7	559677.5
FLAG	783261.3	3326064.9	90 03 45.84718	30 01 58.37467	3682877.3	559679.3
FLAG	783266.6	3326065.7	90 03 45.64878	30 01 58.39621	3682894.7	559681.7
FLAG	783269.7	3326065.9	90 03 45.53300	30 01 58.40012	3682904.9	559682.2
FLAG	783293.9	3326006.9	90 03 44.68711	30 01 56.46566	3682981.4	559487.6
FLAG	783293.9	3326010.7	90 03 44.68347	30 01 56.58895	3682981.6	559500.1
FLAG	783294.3	3326002.5	90 03 44.67641	30 01 56.32257	3682982.5	559473.2
FLAG	783294.5	3326005.0	90 03 44.66655	30 01 56.40351	3682983.3	559481.3
FLAG	783298.3	3326050.7	90 03 44.48109	30 01 57.88311	3682997.9	559631.0
FLAG	783304.5	3326051.9	90 03 44.24875	30 01 57.91688	3683018.3	559634.6
FLAG	783331.8	3326079.7	90 03 43.20413	30 01 58.79611	3683109.1	559724.5
FLAG	783332.7	3326056.1	90 03 43.19318	30 01 58.02965	3683111.0	559647.0
FLAG	783351.5	3326083.3	90 03 42.46609	30 01 58.89650	3683173.9	559735.3
FLAG	783357.1	3326084.3	90 03 42.25631	30 01 58.92428	3683192.3	559738.3
FLAG	783363.6	3326062.5	90 03 42.03482	30 01 58.21155	3683212.6	559666.5
FLAG	783365.6	3326083.2	90 03 41.94041	30 01 58.88150	3683220.1	559734.3
FLAG	783487.2	3326077.5	90 03 37.41153	30 01 58.59518	3683618.5	559709.8
FLAG	783487.6	3326071.4	90 03 37.40246	30 01 58.39693	3683619.5	559689.8
FLAG	783487.8	3326094.6	90 03 37.37277	30 01 59.14950	3683621.3	559765.8
FLAG	783640.6	3326099.8	90 03 31.67003	30 01 59.19076	3684122.4	559775.6
FLAG	783647.5	3326102.6	90 03 31.41005	30 01 59.27585	3684145.2	559784.4
FLAG	783660.8	3326093.0	90 03 30.92331	30 01 58.95328	3684188.3	559752.3

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	783704.7	3326059.5	90 03 29.31846	30 01 57.82972	3684330.6	559640.4
FLAG	783705.0	3326056.4	90 03 29.31024	30 01 57.72889	3684331.5	559630.2
FLAG	783707.5	3326054.2	90 03 29.21913	30 01 57.65543	3684339.6	559622.9
FLAG	783707.9	3326063.2	90 03 29.19558	30 01 57.94710	3684341.3	559652.4
FLAG	783712.5	3326066.0	90 03 29.02137	30 01 58.03411	3684356.5	559661.3
FLAG	783719.4	3326054.8	90 03 28.77482	30 01 57.66496	3684378.6	559624.3
FLAG	783725.9	3326052.4	90 03 28.53474	30 01 57.58167	3684399.8	559616.1
FLAG	783730.8	3326052.4	90 03 28.35203	30 01 57.57758	3684415.9	559615.9
FLAG	783750.7	3326057.8	90 03 27.60480	30 01 57.73618	3684481.4	559632.6
FLAG	783753.1	3326058.4	90 03 27.51473	30 01 57.75364	3684489.3	559634.5
FLAG	783755.0	3326059.2	90 03 27.44312	30 01 57.77801	3684495.5	559637.0
FLAG	783756.7	3326059.8	90 03 27.37915	30 01 57.79606	3684501.1	559638.9
FLAG	783764.9	3326078.3	90 03 27.05564	30 01 58.38945	3684528.9	559699.1
FLAG	783970.8	3326074.0	90 03 19.38200	30 01 58.07801	3685203.7	559675.2
FLAG	783976.4	3326073.8	90 03 19.17338	30 01 58.06684	3685222.0	559674.3
FLAG	783992.1	3326142.1	90 03 18.52237	30 02 00.26975	3685276.8	559897.4
FLAG	783993.1	3326126.8	90 03 18.49977	30 01 59.77250	3685279.3	559847.2
FLAG	784022.5	3326203.8	90 03 17.32954	30 02 02.24623	3685379.4	560098.3
FLAG	784022.8	3326202.7	90 03 17.31941	30 02 02.21029	3685380.3	560094.6
FLAG	784023.1	3326201.2	90 03 17.30966	30 02 02.16137	3685381.2	560089.7
FLAG	784024.5	3326186.1	90 03 17.27196	30 02 01.67028	3685385.1	560040.1
FLAG	784025.2	3326183.2	90 03 17.24864	30 02 01.57560	3685387.3	560030.6
FLAG	784025.4	3326181.0	90 03 17.24330	30 02 01.50405	3685387.8	560023.4
FLAG	784025.9	3326176.2	90 03 17.22926	30 02 01.34790	3685389.2	560007.6
FLAG	784028.7	3326141.7	90 03 17.15798	30 02 00.22619	3685396.7	559894.4
FLAG	784029.1	3326143.4	90 03 17.14143	30 02 00.28102	3685398.1	559899.9
FLAG	784029.5	3326145.2	90 03 17.12479	30 02 00.33908	3685399.5	559905.8
FLAG	784034.6	3326150.0	90 03 16.93000	30 02 00.49056	3685416.5	559921.3
FLAG	784051.3	3326146.5	90 03 16.31064	30 02 00.36305	3685471.1	559909.0
FLAG	784051.6	3326143.0	90 03 16.30281	30 02 00.24924	3685471.9	559897.5
FLAG	784052.0	3326141.3	90 03 16.28953	30 02 00.19375	3685473.1	559892.0
FLAG	784203.6	3326207.2	90 03 10.57322	30 02 02.20519	3685973.2	560100.7
FLAG	784205.2	3326207.1	90 03 10.51365	30 02 02.20060	3685978.5	560100.3
FLAG	784205.3	3326183.4	90 03 10.53269	30 02 01.43157	3685977.7	560022.6
FLAG	784206.4	3326183.4	90 03 10.49168	30 02 01.43065	3685981.3	560022.6
FLAG	784217.0	3326217.6	90 03 10.06355	30 02 02.53142	3686017.7	560134.2
FLAG	784219.8	3326217.9	90 03 09.95885	30 02 02.53881	3686026.9	560135.0
FLAG	784220.0	3326218.0	90 03 09.95130	30 02 02.54189	3686027.5	560135.4
FLAG	784243.7	3326218.5	90 03 09.06707	30 02 02.53829	3686105.2	560135.9
FLAG	784252.6	3326221.3	90 03 08.73250	30 02 02.62170	3686134.6	560144.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	784778.6	3326233.0	90 02 49.10723	30 02 02.56107	3687859.5	560157.8
FLAG	784778.7	3326235.1	90 02 49.10148	30 02 02.62912	3687859.9	560164.7
FLAG	784785.9	3326270.6	90 02 48.79882	30 02 03.77489	3687885.2	560280.7
FLAG	784787.4	3326267.2	90 02 48.74616	30 02 03.66332	3687890.0	560269.5
FLAG	784800.3	3326234.5	90 02 48.29661	30 02 02.59156	3687930.7	560161.7
FLAG	784802.5	3326237.0	90 02 48.21217	30 02 02.67083	3687938.0	560169.8
FLAG	784833.8	3326246.8	90 02 47.03559	30 02 02.96257	3688041.1	560200.4
FLAG	784834.5	3326244.6	90 02 47.01161	30 02 02.89060	3688043.3	560193.2
FLAG	784835.4	3326241.1	90 02 46.98142	30 02 02.77629	3688046.1	560181.7
FLAG	784851.5	3326278.9	90 02 46.34466	30 02 03.98922	3688100.7	560304.8
FLAG	784863.3	3326255.3	90 02 45.92738	30 02 03.21363	3688138.2	560226.9
FLAG	784863.7	3326251.9	90 02 45.91574	30 02 03.10298	3688139.4	560215.7
FLAG	784864.2	3326249.5	90 02 45.89941	30 02 03.02469	3688140.9	560207.8
FLAG	784866.5	3326282.6	90 02 45.78176	30 02 04.09670	3688150.0	560316.2
FLAG	784950.0	3326272.1	90 02 42.67825	30 02 03.68604	3688423.3	560277.8
FLAG	784951.0	3326265.9	90 02 42.64693	30 02 03.48405	3688426.2	560257.4
FLAG	784951.4	3326262.5	90 02 42.63529	30 02 03.37340	3688427.4	560246.3
FLAG	784951.8	3326259.9	90 02 42.62288	30 02 03.28871	3688428.6	560237.7
FLAG	784951.9	3326257.2	90 02 42.62175	30 02 03.20102	3688428.8	560228.9
FLAG	785049.2	3326303.7	90 02 38.94873	30 02 04.62814	3688750.0	560376.6
FLAG	785058.9	3326300.9	90 02 38.58972	30 02 04.52916	3688781.6	560367.0
FLAG	785068.1	3326298.9	90 02 38.24859	30 02 04.45655	3688811.7	560360.0
FLAG	785096.8	3326249.5	90 02 37.22601	30 02 02.82970	3688903.4	560196.7
FLAG	785098.2	3326254.2	90 02 37.16928	30 02 02.98102	3688908.2	560212.0
FLAG	785099.5	3326259.0	90 02 37.11618	30 02 03.13567	3688912.7	560227.7
FLAG	785102.1	3326265.6	90 02 37.01286	30 02 03.34762	3688921.6	560249.2
FLAG	785103.2	3326269.9	90 02 36.96770	30 02 03.48621	3688925.4	560263.3
FLAG	785164.7	3326251.0	90 02 34.69266	30 02 02.82142	3689126.1	560198.4
FLAG	785175.3	3326282.5	90 02 34.26702	30 02 03.83454	3689162.3	560301.1
FLAG	785185.3	3326267.8	90 02 33.90831	30 02 03.34921	3689194.4	560252.5
FLAG	785213.1	3326191.7	90 02 32.94506	30 02 00.85683	3689281.9	560001.6
FLAG	785215.0	3326191.1	90 02 32.87479	30 02 00.83576	3689288.1	559999.6
FLAG	785216.4	3326164.2	90 02 32.84852	30 01 59.96182	3689291.4	559911.3
FLAG	785217.6	3326164.9	90 02 32.80310	30 01 59.98352	3689295.4	559913.6
FLAG	785219.2	3326189.9	90 02 32.71933	30 02 00.79331	3689301.8	559995.5
FLAG	785219.3	3326190.0	90 02 32.71551	30 02 00.79647	3689302.2	559995.8
FLAG	785219.9	3326186.9	90 02 32.69612	30 02 00.69538	3689304.0	559985.6
FLAG	785220.2	3326185.2	90 02 32.68658	30 02 00.63998	3689304.9	559980.0
FLAG	785220.3	3326183.6	90 02 32.68439	30 02 00.58798	3689305.1	559974.7
FLAG	785222.1	3326165.3	90 02 32.63492	30 01 59.99273	3689310.2	559914.7

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	785224.8	3326162.0	90 02 32.53742	30 01 59.88339	3689318.9	559903.7
FLAG	785225.6	3326165.9	90 02 32.50383	30 02 00.00926	3689321.7	559916.5
FLAG	785226.1	3326168.9	90 02 32.48229	30 02 00.10617	3689323.4	559926.3
FLAG	785226.3	3326171.8	90 02 32.47204	30 02 00.20009	3689324.2	559935.8
FLAG	785226.6	3326175.2	90 02 32.45757	30 02 00.31016	3689325.4	559946.9
FLAG	785227.6	3326178.3	90 02 32.41729	30 02 00.40990	3689328.8	559957.0
FLAG	785227.7	3326181.1	90 02 32.41087	30 02 00.50066	3689329.3	559966.2
FLAG	785228.0	3326184.2	90 02 32.39669	30 02 00.60099	3689330.4	559976.3
FLAG	785228.4	3326190.4	90 02 32.37580	30 02 00.80181	3689332.0	559996.7
FLAG	785228.7	3326187.4	90 02 32.36750	30 02 00.70422	3689332.9	559986.8
FLAG	785228.7	3326192.2	90 02 32.36287	30 02 00.85996	3689333.1	560002.5
FLAG	785229.7	3326195.6	90 02 32.32231	30 02 00.96943	3689336.5	560013.6
FLAG	785233.5	3326208.2	90 02 32.16846	30 02 01.37505	3689349.6	560054.8
FLAG	785233.6	3326213.2	90 02 32.15991	30 02 01.53719	3689350.2	560071.1
FLAG	785234.2	3326179.5	90 02 32.17003	30 02 00.44329	3689350.5	559960.6
FLAG	785234.8	3326216.7	90 02 32.11179	30 02 01.64974	3689354.3	560082.6
FLAG	785237.8	3326179.0	90 02 32.03628	30 02 00.42405	3689362.3	559958.8
FLAG	785238.7	3326224.1	90 02 31.95923	30 02 01.88656	3689367.4	560106.6
FLAG	785241.3	3326228.0	90 02 31.85851	30 02 02.01092	3689376.1	560119.3
FLAG	785242.1	3326178.6	90 02 31.87632	30 02 00.40746	3689376.4	559957.3
FLAG	785248.8	3326177.7	90 02 31.62736	30 02 00.37264	3689398.3	559954.0
FLAG	785253.5	3326202.0	90 02 31.42867	30 02 01.15711	3689414.9	560033.5
FLAG	785253.8	3326177.2	90 02 31.44140	30 02 00.35222	3689414.7	559952.2
FLAG	785255.4	3326184.2	90 02 31.37498	30 02 00.57800	3689420.2	559975.0
FLAG	785255.4	3326206.8	90 02 31.35319	30 02 01.31125	3689421.3	560049.1
FLAG	785255.6	3326190.4	90 02 31.36155	30 02 00.77899	3689421.2	559995.4
FLAG	785255.8	3326187.9	90 02 31.35650	30 02 00.69771	3689421.7	559987.1
FLAG	785257.0	3326176.7	90 02 31.32255	30 02 00.33332	3689425.1	559950.4
FLAG	785258.7	3326172.5	90 02 31.26321	30 02 00.19562	3689430.5	559936.5
FLAG	785260.1	3326169.3	90 02 31.21410	30 02 00.09062	3689434.9	559926.0
FLAG	785260.6	3326166.7	90 02 31.19796	30 02 00.00585	3689436.4	559917.4
FLAG	785260.8	3326163.8	90 02 31.19330	30 01 59.91159	3689437.0	559907.9
FLAG	785261.0	3326161.2	90 02 31.18835	30 01 59.82706	3689437.5	559899.4
FLAG	785261.2	3326155.9	90 02 31.18600	30 01 59.65494	3689437.9	559882.0
FLAG	785302.1	3326197.3	90 02 29.62097	30 02 00.96384	3689574.0	560015.7
FLAG	785306.3	3326196.4	90 02 29.46523	30 02 00.93111	3689587.7	560012.6
FLAG	785310.8	3326195.1	90 02 29.29869	30 02 00.88516	3689602.4	560008.1
FLAG	785315.4	3326150.5	90 02 29.17018	30 01 59.43425	3689615.3	559861.7
FLAG	785316.5	3326193.6	90 02 29.08759	30 02 00.83170	3689621.0	560002.9
FLAG	785318.9	3326151.2	90 02 29.03899	30 01 59.45402	3689626.8	559863.8

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	785321.4	3326151.1	90 02 28.94587	30 01 59.44868	3689635.0	559863.4
FLAG	785322.9	3326152.4	90 02 28.88868	30 01 59.48960	3689640.0	559867.6
FLAG	785326.5	3326152.6	90 02 28.75425	30 01 59.49307	3689651.8	559868.0
FLAG	785366.1	3326150.8	90 02 27.27937	30 01 59.40143	3689781.5	559860.2
FLAG	785366.3	3326148.0	90 02 27.27461	30 01 59.31041	3689782.1	559851.1
FLAG	785379.8	3326106.1	90 02 26.81164	30 01 57.93964	3689824.3	559713.1
FLAG	785385.7	3326104.3	90 02 26.59338	30 01 57.87628	3689843.6	559706.9
FLAG	785387.3	3326020.1	90 02 26.61495	30 01 55.14308	3689844.8	559430.8
FLAG	785389.1	3326021.2	90 02 26.54677	30 01 55.17726	3689850.7	559434.3
FLAG	785391.9	3326023.2	90 02 26.44043	30 01 55.23979	3689860.0	559440.7
FLAG	785393.9	3326025.0	90 02 26.36412	30 01 55.29652	3689866.7	559446.5
FLAG	785400.8	3326030.4	90 02 26.10162	30 01 55.46593	3689889.5	559463.9
FLAG	785403.9	3326033.7	90 02 25.98285	30 01 55.57039	3689899.9	559474.6
FLAG	785405.8	3326035.4	90 02 25.91036	30 01 55.62395	3689906.2	559480.0
FLAG	785470.8	3325939.4	90 02 23.57928	30 01 52.45467	3690114.7	559162.2
FLAG	785472.7	3325939.0	90 02 23.50882	30 01 52.44009	3690120.9	559160.8
FLAG	785474.0	3325938.7	90 02 23.46064	30 01 52.42927	3690125.1	559159.8
FLAG	785475.6	3325938.5	90 02 23.40117	30 01 52.42144	3690130.4	559159.0
FLAG	785477.4	3325938.4	90 02 23.33415	30 01 52.41668	3690136.3	559158.6
FLAG	785485.2	3325937.6	90 02 23.04408	30 01 52.38417	3690161.8	559155.6
FLAG	785493.0	3325936.8	90 02 22.75401	30 01 52.35167	3690187.3	559152.6
FLAG	785498.2	3325936.8	90 02 22.56011	30 01 52.34730	3690204.4	559152.4
FLAG	785501.6	3325936.7	90 02 22.43343	30 01 52.34120	3690215.5	559151.9
FLAG	785504.6	3325936.3	90 02 22.32195	30 01 52.32571	3690225.3	559150.4
FLAG	785506.8	3325935.9	90 02 22.24031	30 01 52.31088	3690232.5	559149.0
FLAG	785509.7	3325935.5	90 02 22.13256	30 01 52.29547	3690242.0	559147.6
FLAG	785516.6	3325935.8	90 02 21.87499	30 01 52.29941	3690264.6	559148.2
FLAG	785517.4	3325930.7	90 02 21.85008	30 01 52.13327	3690267.0	559131.5
FLAG	785519.3	3325935.5	90 02 21.77460	30 01 52.28741	3690273.5	559147.1
FLAG	785523.0	3325935.3	90 02 21.63683	30 01 52.27781	3690285.6	559146.3
FLAG	785524.9	3325889.5	90 02 21.61019	30 01 50.79024	3690289.6	558996.0
FLAG	785525.3	3325893.5	90 02 21.59141	30 01 50.91968	3690291.1	559009.1
FLAG	785525.4	3325894.0	90 02 21.58720	30 01 50.93582	3690291.5	559010.8
FLAG	785525.5	3325896.3	90 02 21.58125	30 01 51.01036	3690291.9	559018.3
FLAG	785527.1	3325935.0	90 02 21.48424	30 01 52.26463	3690299.0	559145.1
FLAG	785528.7	3325896.4	90 02 21.46183	30 01 51.01091	3690302.4	559018.5
FLAG	785528.8	3325894.3	90 02 21.46013	30 01 50.94270	3690302.6	559011.6
FLAG	785531.4	3325969.6	90 02 21.29051	30 01 53.38361	3690314.8	559258.3
FLAG	785532.6	3325910.7	90 02 21.30261	30 01 51.47160	3690315.9	559065.2
FLAG	785533.0	3325912.3	90 02 21.28615	30 01 51.52318	3690317.3	559070.4

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	785533.8	3325915.1	90 02 21.25362	30 01 51.61335	3690320.0	559079.5
FLAG	785534.0	3325918.1	90 02 21.24327	30 01 51.71052	3690320.8	559089.4
FLAG	785534.1	3325968.0	90 02 21.19137	30 01 53.32944	3690323.5	559252.9
FLAG	785534.7	3325920.0	90 02 21.21533	30 01 51.77158	3690323.2	559095.6
FLAG	785539.0	3325965.3	90 02 21.01127	30 01 53.23772	3690339.5	559243.9
FLAG	785540.9	3325919.9	90 02 20.98424	30 01 51.76312	3690343.5	559094.9
FLAG	785544.2	3325963.7	90 02 20.81892	30 01 53.18144	3690356.4	559238.4
FLAG	785545.0	3325920.4	90 02 20.83088	30 01 51.77590	3690357.0	559096.4
FLAG	785551.5	3325909.9	90 02 20.59865	30 01 51.42977	3690377.8	559061.6
FLAG	785551.9	3325921.4	90 02 20.57263	30 01 51.80255	3690379.7	559099.3
FLAG	785552.0	3325918.5	90 02 20.57170	30 01 51.70838	3690379.9	559089.8
FLAG	785552.9	3325961.1	90 02 20.49702	30 01 53.08978	3690384.8	559229.4
FLAG	785554.4	3325916.6	90 02 20.48405	30 01 51.64472	3690387.6	559083.5
FLAG	785555.8	3325922.9	90 02 20.42576	30 01 51.84794	3690392.5	559104.1
FLAG	785555.8	3325960.3	90 02 20.38966	30 01 53.06138	3690394.3	559226.7
FLAG	785557.3	3325914.3	90 02 20.37813	30 01 51.56766	3690397.0	559075.8
FLAG	785559.4	3325923.2	90 02 20.29124	30 01 51.85465	3690404.3	559104.9
FLAG	785561.0	3325911.4	90 02 20.24297	30 01 51.47046	3690409.0	559066.1
FLAG	785561.1	3325911.3	90 02 20.23934	30 01 51.46713	3690409.3	559065.8
FLAG	785562.3	3325923.7	90 02 20.18262	30 01 51.86844	3690413.9	559106.4
FLAG	785562.5	3325909.7	90 02 20.18868	30 01 51.41404	3690413.9	559060.5
FLAG	785565.1	3325924.5	90 02 20.07745	30 01 51.89205	3690423.1	559108.9
FLAG	785565.8	3325935.1	90 02 20.04111	30 01 52.23537	3690425.9	559143.6
FLAG	785566.2	3325913.1	90 02 20.04743	30 01 51.52125	3690426.1	559071.4
FLAG	785566.2	3325931.0	90 02 20.03015	30 01 52.10201	3690427.0	559130.1
FLAG	785567.0	3325928.6	90 02 20.00264	30 01 52.02347	3690429.5	559122.2
FLAG	785567.2	3325905.5	90 02 20.01748	30 01 51.27383	3690429.1	559046.5
FLAG	785567.6	3325925.8	90 02 19.98297	30 01 51.93212	3690431.3	559113.0
FLAG	785567.7	3325926.1	90 02 19.97895	30 01 51.94177	3690431.7	559114.0
FLAG	785568.6	3325920.6	90 02 19.95070	30 01 51.76257	3690434.4	559095.9
FLAG	785569.6	3325903.9	90 02 19.92954	30 01 51.21990	3690436.9	559041.1
FLAG	785570.2	3325917.1	90 02 19.89442	30 01 51.64767	3690439.5	559084.4
FLAG	785570.5	3325914.8	90 02 19.88546	30 01 51.57279	3690440.3	559076.8
FLAG	785570.5	3325914.9	90 02 19.88536	30 01 51.57604	3690440.3	559077.1
FLAG	785570.8	3325902.8	90 02 19.88585	30 01 51.18320	3690440.7	559037.5
FLAG	785577.4	3325916.8	90 02 19.62624	30 01 51.63189	3690463.0	559083.0
FLAG	785579.1	3325957.1	90 02 19.52395	30 01 52.93799	3690470.5	559215.1
FLAG	785579.7	3325960.0	90 02 19.49878	30 01 53.03158	3690472.6	559224.5
FLAG	785580.4	3325965.4	90 02 19.46746	30 01 53.20619	3690475.2	559242.2
FLAG	785580.5	3325967.3	90 02 19.46190	30 01 53.26775	3690475.6	559248.4

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
FLAG	785583.2	3325920.1	90 02 19.40679	30 01 51.73408	3690482.2	559093.6
FLAG	785583.8	3325945.0	90 02 19.36038	30 01 52.54146	3690485.4	559175.2
FLAG	785585.3	3325988.9	90 02 19.26207	30 01 53.96453	3690492.4	559319.0
FLAG	785585.6	3325945.8	90 02 19.29249	30 01 52.56590	3690491.3	559177.7
FLAG	785585.8	3325991.1	90 02 19.24130	30 01 54.03549	3690494.1	559326.2
FLAG	785586.0	3325992.8	90 02 19.23220	30 01 54.09048	3690494.9	559331.8
FLAG	785586.8	3325998.8	90 02 19.19658	30 01 54.28447	3690497.8	559351.4
FLAG	785587.0	3325946.1	90 02 19.24000	30 01 52.57446	3690495.9	559178.6
FLAG	785587.1	3326002.0	90 02 19.18230	30 01 54.38805	3690498.9	559361.9
FLAG	785587.1	3326004.5	90 02 19.17989	30 01 54.46916	3690499.0	559370.1
FLAG	785588.7	3325945.8	90 02 19.17690	30 01 52.56330	3690501.5	559177.6
FLAG	785594.0	3325986.5	90 02 18.93998	30 01 53.87935	3690520.8	559310.7
FLAG	785597.4	3325985.1	90 02 18.81455	30 01 53.83107	3690531.9	559306.0
FLAG 3 FT	785537.7	3325930.7	90 02 21.09314	30 01 52.11622	3690333.6	559130.5
FLAG 6.5FT	785543.0	3325925.8	90 02 20.90025	30 01 51.95279	3690350.7	559114.2
FLAG 7FT	785546.0	3325923.5	90 02 20.79060	30 01 51.87564	3690360.4	559106.5
GAS FLAG	782619.0	3325974.9	90 04 09.88399	30 01 55.98912	3680767.3	559415.0
GAS LINE	785292.3	3326219.0	90 02 29.96547	30 02 01.67612	3689542.9	560087.4
GAS REMOVED	784857.0	3326256.8	90 02 46.16086	30 02 03.26758	3688117.6	560232.1
GAS SIGN	782829.5	3326040.5	90 04 01.97195	30 01 57.94251	3681460.6	559620.0
GAS VALVE	785323.7	3326215.4	90 02 28.79808	30 02 01.53296	3689645.6	560074.1
GAS VAULT	784220.9	3326188.6	90 03 09.94599	30 02 01.58724	3686029.1	560038.9
GATE L10 EA	785352.4	3326110.5	90 02 27.82909	30 01 58.10540	3689734.7	559728.8
GATE L10 WE	785350.4	3326119.5	90 02 27.89499	30 01 58.39908	3689728.6	559758.4
GATE L11	785560.8	3325982.7	90 02 20.18160	30 01 53.78395	3690411.8	559299.9
GATE L11	785570.7	3325981.2	90 02 19.81390	30 01 53.72697	3690444.2	559294.5
GRATE	783023.4	3325981.1	90 03 54.79843	30 01 55.85386	3682093.4	559416.0
GRATE	783079.6	3325985.7	90 03 52.69840	30 01 55.95632	3682277.8	559428.4
GRATE	783093.4	3326003.4	90 03 52.16687	30 01 56.51912	3682323.9	559485.7
GRATE	783121.4	3326004.8	90 03 51.12144	30 01 56.54123	3682415.8	559489.0
GRATE	783140.9	3326004.1	90 03 50.39498	30 01 56.50227	3682479.7	559485.7
GRATE	783180.6	3326033.8	90 03 48.88618	30 01 57.43284	3682611.3	559581.2
GRATE	783182.6	3326002.2	90 03 48.84185	30 01 56.40589	3682616.3	559477.5
GRATE	783201.3	3326002.6	90 03 48.14417	30 01 56.40330	3682677.6	559477.9
GRATE	783219.6	3326003.9	90 03 47.46054	30 01 56.43023	3682737.7	559481.3
GRATE	784040.7	3326143.0	90 03 16.70926	30 02 00.25835	3685436.1	559898.1
GRATE	785258.3	3326245.5	90 02 31.20773	30 02 02.56444	3689432.7	560175.9
GRATE	785269.6	3326178.2	90 02 30.85127	30 02 00.37141	3689466.5	559954.7
GRATE	785468.7	3325939.6	90 02 23.65739	30 01 52.46292	3690107.8	559163.0
GRATE	785589.0	3325986.4	90 02 19.12652	30 01 53.88031	3690504.4	559310.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
GUARD RAIL	785298.7	3326242.0	90 02 29.70464	30 02 02.41698	3689564.9	560162.4
GUARD RAIL	785303.9	3326185.2	90 02 29.56553	30 02 00.56974	3689579.3	559976.0
GUIDE LINE	785507.2	3325891.4	90 02 22.26834	30 01 50.86675	3690231.7	559003.1
HYDRANT	782371.4	3325895.2	90 04 19.19284	30 01 53.60893	3679951.8	559165.5
HYDRANT	782523.7	3325956.3	90 04 13.45540	30 01 55.46484	3680454.0	559358.6
HYDRANT	782892.9	3325996.8	90 03 59.64961	30 01 56.47188	3681666.3	559473.7
HYDRANT	783282.6	3326005.9	90 03 45.10943	30 01 56.44263	3682944.3	559484.9
HYDRANT	784218.1	3326193.8	90 03 10.04540	30 02 01.75830	3686020.1	560056.1
HYDRANT	785032.6	3326207.7	90 02 39.66024	30 02 01.52733	3688691.0	560062.7
HYDRANT	785121.7	3326198.2	90 02 36.34697	30 02 01.14439	3688982.6	560027.3
HYDRANT	785165.4	3326201.2	90 02 34.71457	30 02 01.20507	3689126.0	560035.1
LAMP	783687.0	3326062.3	90 03 29.97578	30 01 57.93534	3684272.7	559650.4
LAMP	783716.0	3326065.2	90 03 28.89163	30 01 58.00523	3684368.0	559658.5
LAMP	783746.3	3326068.9	90 03 27.75823	30 01 58.09999	3684467.5	559669.2
LAMP	783752.6	3326045.1	90 03 27.54614	30 01 57.32253	3684487.0	559590.9
LAMP	783765.7	3326072.6	90 03 27.03127	30 01 58.20385	3684531.2	559680.4
LAMP	783767.6	3326099.3	90 03 26.93481	30 01 59.06855	3684538.7	559767.9
LAMP	783783.3	3326102.1	90 03 26.34669	30 01 59.14630	3684590.4	559776.3
LAMP	783806.7	3326128.8	90 03 25.44851	30 01 59.99306	3684668.3	559862.7
LAMP	783984.6	3326196.7	90 03 18.74962	30 02 02.04753	3685254.8	560076.8
LAMP	784028.1	3326207.1	90 03 17.11755	30 02 02.34862	3685397.9	560108.8
LAMP	784031.5	3326186.4	90 03 17.01065	30 02 01.67416	3685408.1	560040.8
LAMP	784059.1	3326206.5	90 03 15.96217	30 02 02.30325	3685499.5	560105.4
LAMP	784207.2	3326173.3	90 03 10.47155	30 02 01.10228	3685983.4	559989.4
LAMP	784223.0	3326212.2	90 03 09.84500	30 02 02.35119	3686037.1	560116.2
LAMP BASE	783231.4	3326021.7	90 03 47.00349	30 01 56.99793	3682777.2	559539.1
LAMP BASE	784078.0	3326191.2	90 03 15.27210	30 02 01.79104	3685560.7	560054.3
LEVEE CL	785321.5	3326194.7	90 02 28.90008	30 02 00.86320	3689637.4	560006.3
LEVEE CL	785356.6	3326103.0	90 02 27.67972	30 01 57.85853	3689748.1	559704.0
LEVEE CL	785615.1	3325947.6	90 02 18.19077	30 01 52.59952	3690588.1	559182.2
LEVEE STA2	785292.3	3326219.0	90 02 29.96547	30 02 01.67612	3689542.9	560087.4
LIGHT POLE	782922.1	3326007.5	90 03 58.55054	30 01 56.79475	3681762.6	559507.3
LIGHT POLE	782948.2	3325976.2	90 03 57.60724	30 01 55.75748	3681846.6	559403.5
LIGHT POLE	782968.7	3325942.9	90 03 56.87467	30 01 54.65997	3681912.2	559293.3
LIGHT POLE	785173.4	3326291.2	90 02 34.32949	30 02 04.11841	3689156.5	560329.7
LIGHT POLE	785324.1	3326177.6	90 02 28.81963	30 02 00.30621	3689645.1	559950.1
LIGHT POLE	785345.3	3326095.1	90 02 28.10870	30 01 57.61170	3689710.7	559678.6
LIGHT POLE	785364.4	3326052.9	90 02 27.43720	30 01 56.22649	3689771.3	559539.4
LIGHT POLE	785385.9	3326014.1	90 02 26.67294	30 01 54.94958	3689839.9	559411.2
LIGHT POLE	785416.2	3325979.3	90 02 25.57669	30 01 53.79506	3689937.6	559295.6

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
LIGHT POLE	785450.1	3325949.1	90 02 24.34178	30 01 52.78676	3690047.3	559195.0
LIGHT POLE	785494.6	3325930.6	90 02 22.70033	30 01 52.14917	3690192.3	559132.2
LIGHT POLE	785494.7	3325930.5	90 02 22.69670	30 01 52.14584	3690192.6	559131.9
LIGHT POLE	785535.2	3325930.4	90 02 21.18665	30 01 52.10858	3690325.4	559129.6
LIGHT POLE	785571.3	3325966.2	90 02 19.80601	30 01 53.23979	3690445.4	559245.3
LIGHT POLE	785588.2	3325923.0	90 02 19.21755	30 01 51.82397	3690498.7	559102.8
LP BASE	783127.4	3326058.8	90 03 50.84602	30 01 58.28829	3682438.0	559665.7
LP BASE	783189.9	3326020.8	90 03 48.55184	30 01 57.00330	3682641.1	559538.1
MAILBOX	785179.9	3326201.0	90 02 34.17407	30 02 01.18642	3689173.5	560033.7
MANHOLE	782998.2	3325936.1	90 03 55.78116	30 01 54.41479	3682008.6	559269.6
MANHOLE COV	785107.0	3326274.8	90 02 36.82128	30 02 03.64201	3688938.1	560279.1
MANHOLE GRE	785400.2	3326089.3	90 02 26.06717	30 01 57.37744	3689890.4	559657.0
MH	782537.3	3325949.0	90 04 12.95524	30 01 55.21669	3680498.3	559334.0
MH	784220.1	3326180.3	90 03 09.98379	30 02 01.31861	3686026.0	560011.8
MH DRAIN	783780.7	3326100.3	90 03 26.44537	30 01 59.09007	3684581.7	559770.5
MH DRAIN	784234.8	3326207.2	90 03 09.40980	30 02 02.17910	3686075.5	560099.2
MH ELECT	783269.8	3326003.9	90 03 45.58864	30 01 56.38841	3682902.2	559478.9
MH PHONE	783271.1	3326005.4	90 03 45.53873	30 01 56.43599	3682906.6	559483.8
MH SEWER	783256.0	3326005.5	90 03 46.10169	30 01 56.45182	3682857.1	559484.8
MH WATER	782534.1	3325932.4	90 04 13.09042	30 01 54.68075	3680487.0	559279.7
MH WATER	784217.7	3326190.4	90 03 10.06358	30 02 01.64832	3686018.7	560045.0
MH1	784027.8	3326080.1	90 03 17.25069	30 01 58.22831	3685390.8	559692.5
MH2	783929.4	3326069.2	90 03 20.93036	30 01 57.95685	3685067.7	559661.4
NOPSI	782511.0	3325886.1	90 04 13.99601	30 01 53.19770	3680409.0	559129.0
PATH	782996.3	3326021.2	90 03 55.77059	30 01 57.17750	3682006.5	559548.7
PATH	783011.3	3326032.5	90 03 55.20045	30 01 57.53164	3682056.2	559585.0
PATH	783041.1	3326036.4	90 03 54.08550	30 01 57.63337	3682154.1	559596.4
PATH	783089.0	3326056.4	90 03 52.28022	30 01 58.24240	3682312.0	559659.7
POINT	784847.8	3326226.0	90 02 46.53358	30 02 02.27598	3688086.0	560131.6
POINT	784857.0	3326227.7	90 02 46.18888	30 02 02.32342	3688116.3	560136.7
POINT	784890.4	3326230.5	90 02 44.94074	30 02 02.38628	3688225.9	560144.3
POINT	784903.5	3326231.3	90 02 44.45148	30 02 02.40126	3688268.9	560146.3
POINT	785039.0	3326243.3	90 02 39.38728	30 02 02.67701	3688713.6	560179.1
POINT	785141.9	3326216.4	90 02 35.57620	30 02 01.71795	3689049.7	560086.0
POINT	785173.1	3326199.9	90 02 34.42870	30 02 01.15643	3689151.2	560030.4
POINT	785188.7	3326196.5	90 02 33.85027	30 02 01.03303	3689202.2	560018.5
POINT	785200.3	3326194.8	90 02 33.41936	30 02 00.96814	3689240.1	560012.4
POINT	785206.0	3326193.5	90 02 33.20807	30 02 00.92118	3689258.7	560007.9
POLE ELECTR	785411.7	3326039.6	90 02 25.68631	30 01 55.75527	3689925.7	559493.5
POSLINE	784838.5	3326232.3	90 02 46.87430	30 02 02.48817	3688055.8	560152.7

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
POSLINE	784840.4	3326226.5	90 02 46.80903	30 02 02.29840	3688061.8	560133.6
POSLINE	784950.9	3326244.8	90 02 42.67099	30 02 02.79954	3688424.9	560188.3
POSLINE	784952.0	3326237.3	90 02 42.63719	30 02 02.55528	3688428.1	560163.6
POSLINE	784973.5	3326245.6	90 02 41.82749	30 02 02.80655	3688499.0	560189.8
POSLINE	784974.3	3326239.6	90 02 41.80344	30 02 02.61121	3688501.4	560170.1
POSLINE	785028.4	3326237.1	90 02 39.78852	30 02 02.48474	3688678.6	560159.3
POSLINE	785029.4	3326229.6	90 02 39.75846	30 02 02.24056	3688681.5	560134.7
POSLINE	785029.9	3326247.9	90 02 39.72218	30 02 02.83389	3688684.0	560194.6
POSLINE	785030.3	3326252.3	90 02 39.70302	30 02 02.97631	3688685.6	560209.1
POSLINE	785049.0	3326245.5	90 02 39.01227	30 02 02.74001	3688746.5	560185.9
POSLINE	785050.4	3326251.5	90 02 38.95429	30 02 02.93350	3688751.4	560205.5
POSMH	785170.9	3326207.6	90 02 34.50331	30 02 01.40810	3689144.3	560055.8
POSVault	785016.8	3326241.9	90 02 40.21644	30 02 02.65020	3688640.8	560175.6
POWER POLE	785502.0	3325890.0	90 02 22.46359	30 01 50.82569	3690214.6	558998.8
PVC W CONCR	785104.7	3326272.7	90 02 36.90907	30 02 03.57580	3688930.4	560272.4
RAMP EDGE	785497.8	3325910.3	90 02 22.60060	30 01 51.48785	3690201.8	559065.5
RAMP EDGE1	785553.2	3325901.2	90 02 20.54366	30 01 51.14607	3690383.0	559033.0
ROAD EDGE	785317.0	3326196.0	90 02 29.06663	30 02 00.90915	3689622.7	560010.8
ROAD EDGE	785549.1	3325892.5	90 02 20.70493	30 01 50.86725	3690369.1	559004.7
ROAD EDGE	785561.5	3325982.3	90 02 20.15589	30 01 53.77038	3690414.1	559298.5
ROAD EDGE	785596.7	3325920.2	90 02 18.90331	30 01 51.72599	3690526.5	559093.3
ROAD EDGE	785606.9	3325928.9	90 02 18.51458	30 01 51.99969	3690560.3	559121.3
ROAD EDGE	785627.2	3325949.5	90 02 17.73775	30 01 52.65100	3690627.9	559187.8
ROAD SIGN	784235.4	3326196.4	90 03 09.39780	30 02 01.82819	3686077.0	560063.8
ROAD SIGN	785322.1	3326182.6	90 02 28.88938	30 02 00.47011	3689638.8	559966.6
ROCK PILE E	785419.4	3326034.7	90 02 25.40392	30 01 55.58983	3689950.7	559477.1
RUBBLE	785106.2	3326277.3	90 02 36.84870	30 02 03.72379	3688935.6	560287.4
SANSEW	784909.5	3326230.2	90 02 44.22881	30 02 02.36054	3688288.5	560142.4
SANSEWER	784933.4	3326233.2	90 02 43.33472	30 02 02.43784	3688367.0	560151.1
SD CORPS	784927.7	3326249.7	90 02 43.53137	30 02 02.97797	3688349.1	560205.4
SEW CLEAN O	784027.4	3326138.7	90 03 17.20934	30 02 00.12994	3685392.3	559884.6
SEW CLEAN O	784054.9	3326141.5	90 03 16.18120	30 02 00.19781	3685482.6	559892.5
SEWER	785179.0	3326197.7	90 02 34.21081	30 02 01.08010	3689170.4	560022.9
SEWER	785436.4	3325960.0	90 02 24.84210	30 01 53.15192	3690002.9	559231.4
SEWER	785524.2	3325885.0	90 02 21.64063	30 01 50.64482	3690287.1	558981.3
SEWER	785596.9	3325932.5	90 02 18.88398	30 01 52.12489	3690527.7	559133.6
SEWER1	785468.5	3325939.7	90 02 23.66476	30 01 52.46633	3690107.1	559163.3
SEWER2	785475.7	3325939.1	90 02 23.39686	30 01 52.44082	3690130.7	559161.0
SEWER3 HIT	785486.3	3325937.7	90 02 23.00297	30 01 52.38650	3690165.4	559155.9
SEWER4 NO H	785528.6	3325934.5	90 02 21.42879	30 01 52.24715	3690303.9	559143.4

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
SIGN	783471.5	3326121.1	90 03 37.95518	30 02 00.02290	3683569.1	559853.5
SIGN	783572.3	3326132.9	90 03 34.18513	30 02 00.32169	3683900.1	559887.4
SIGN POST	785329.7	3326148.4	90 02 28.63898	30 01 59.35411	3689662.1	559854.1
SIGN POST	785549.0	3325939.9	90 02 20.66291	30 01 52.40522	3690371.0	559160.1
SIGN POST	785564.7	3325950.1	90 02 20.06765	30 01 52.72297	3690423.0	559192.8
SIGN POST	785575.6	3325997.5	90 02 19.61546	30 01 54.25170	3690461.0	559347.7
SIGN POST	785615.4	3325977.1	90 02 18.15110	30 01 53.55639	3690590.5	559278.9
SILT FENCE	784696.3	3326229.0	90 02 52.17996	30 02 02.50022	3687589.5	560148.6
SILT FENCE	785286.8	3326189.3	90 02 30.19920	30 02 00.71712	3689523.4	559990.3
SS	783409.2	3326053.5	90 03 40.34306	30 01 57.88152	3683361.6	559634.9
SS	783434.1	3326056.4	90 03 39.41179	30 01 57.95486	3683443.4	559643.2
SS	783469.7	3326060.8	90 03 38.08009	30 01 58.06793	3683560.3	559655.9
SS	783492.9	3326063.8	90 03 37.21211	30 01 58.14593	3683636.5	559664.6
SS	783524.5	3326070.5	90 03 36.02736	30 01 58.33696	3683740.4	559685.1
SS	783548.3	3326075.8	90 03 35.13481	30 01 58.48907	3683818.7	559701.3
SS	783572.7	3326081.9	90 03 34.21911	30 01 58.66663	3683899.0	559720.1
SS	783787.1	3326155.1	90 03 26.15414	30 02 00.86273	3684605.3	559949.9
SS	783794.1	3326143.7	90 03 25.90406	30 02 00.48701	3684627.7	559912.2
SS	783804.1	3326126.0	90 03 25.54815	30 01 59.90438	3684659.7	559853.6
SS	783968.1	3326194.5	90 03 19.36700	30 02 01.98993	3685200.6	560070.4
SS	783968.9	3326179.0	90 03 19.35205	30 02 01.48636	3685202.5	560019.5
SS	784016.7	3326200.3	90 03 17.54918	30 02 02.13752	3685360.2	560087.1
SS	784018.5	3326185.5	90 03 17.49627	30 02 01.65582	3685365.4	560038.5
SS	784056.9	3326190.4	90 03 16.05966	30 02 01.78272	3685491.5	560052.7
SS	784065.9	3326207.0	90 03 15.70812	30 02 02.31379	3685521.8	560106.7
STA 23+00	785231.9	3326218.7	90 02 32.21800	30 02 01.71707	3689344.8	560089.3
STA 25+00	785173.3	3326236.5	90 02 34.38595	30 02 02.34375	3689153.6	560150.4
STA 27+00	785114.9	3326254.4	90 02 36.54636	30 02 02.97350	3688963.0	560211.9
STA 29+00	785057.9	3326272.0	90 02 38.65486	30 02 03.59234	3688777.0	560272.3
STA 31+00	784995.6	3326270.3	90 02 40.97960	30 02 03.58942	3688572.7	560269.7
STA 33+00	784935.5	3326267.5	90 02 43.22337	30 02 03.54895	3688375.5	560263.4
STA 35+00	784872.9	3326265.0	90 02 45.56007	30 02 03.52030	3688170.2	560258.2
STA 37+00	784814.2	3326256.1	90 02 47.75750	30 02 03.28073	3687977.3	560231.8
STA 39+00	784754.1	3326243.7	90 02 50.01051	30 02 02.92876	3687779.7	560194.1
STA 41+00 en	784696.3	3326229.0	90 02 52.17996	30 02 02.50022	3687589.5	560148.6
STA 65+22	784075.3	3326178.1	90 03 15.38536	30 02 01.36827	3685551.2	560011.5
STA 66+00	784053.7	3326172.7	90 03 16.19599	30 02 01.21111	3685480.2	559994.8
STA 68+00	783993.0	3326165.9	90 03 18.46596	30 02 01.04120	3685280.9	559975.4
STA 69+00	783976.5	3326148.1	90 03 19.09832	30 02 00.47745	3685225.9	559917.9
STA 72+20	783976.6	3326057.1	90 03 19.18195	30 01 57.52484	3685221.9	559619.5

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
STA 75+33	783885.4	3326028.3	90 03 22.61032	30 01 56.66658	3684921.5	559529.5
STA 76+43	783856.3	3326035.9	90 03 23.68813	30 01 56.93746	3684826.5	559555.8
STA 78+00	783821.2	3326065.0	90 03 24.96904	30 01 57.91093	3684712.8	559652.9
STA 79+00	783794.9	3326078.8	90 03 25.93649	30 01 58.38063	3684627.3	559699.4
STGRATE	785048.3	3326241.6	90 02 39.04214	30 02 02.61406	3688744.0	560173.1
STOP SIGN	784236.2	3326221.9	90 03 09.34347	30 02 02.65488	3686080.8	560147.4
STREE SIGN	784234.2	3326214.7	90 03 09.42496	30 02 02.42294	3686073.9	560123.9
STREET	785539.8	3325928.6	90 02 21.01686	30 01 52.04632	3690340.3	559123.5
STRMGRT	784957.3	3326235.9	90 02 42.44091	30 02 02.50541	3688445.5	560158.8
STRMGRT E	784969.1	3326237.1	90 02 41.99975	30 02 02.53446	3688484.2	560162.1
SWING SET E	785148.8	3326312.6	90 02 35.22616	30 02 04.83337	3689076.9	560401.1
SWING SET E	785159.3	3326310.9	90 02 34.83627	30 02 04.76940	3689111.3	560395.0
TABLE	785122.7	3326273.6	90 02 36.23700	30 02 03.58990	3688989.5	560274.5
TABLE	785143.3	3326270.6	90 02 35.47174	30 02 03.47529	3689056.9	560263.6
TABLE	785151.9	3326299.5	90 02 35.12320	30 02 04.40574	3689086.4	560358.0
TABLE	785158.5	3326285.2	90 02 34.89088	30 02 03.93624	3689107.4	560310.8
TABLE	785165.4	3326302.3	90 02 34.61710	30 02 04.48526	3689130.8	560366.5
TABLE CAN	785032.6	3326284.3	90 02 39.58642	30 02 04.01263	3688694.6	560313.8
TILE	783272.2	3326071.5	90 03 45.43441	30 01 58.57973	3682913.3	559700.4
TILE	783273.8	3326062.0	90 03 45.38385	30 01 58.27016	3682918.1	559669.2
TILE	783320.0	3326077.1	90 03 43.64663	30 01 58.72159	3683070.3	559716.5
TILE	783320.7	3326066.9	90 03 43.63030	30 01 58.39006	3683072.1	559683.0
TRAFFIC BAR	785604.6	3326002.3	90 02 18.52948	30 01 54.38308	3690556.3	559362.0
TRANSFORM	785088.8	3326287.4	90 02 37.48779	30 02 04.06608	3688879.0	560321.3
TRASH CAN	785138.1	3326271.7	90 02 35.66458	30 02 03.51534	3689039.9	560267.5
TREE	785238.3	3326187.3	90 02 32.00963	30 02 00.69292	3689364.3	559986.0
TREE	785259.6	3326160.4	90 02 31.24132	30 01 59.80228	3689432.9	559896.8
TREE	785575.4	3325955.7	90 02 19.66327	30 01 52.89567	3690458.3	559210.7
TREE	785576.5	3325926.2	90 02 19.65073	30 01 51.93763	3690460.5	559113.9
VALVE	785547.7	3325962.3	90 02 20.68976	30 01 53.13308	3690367.9	559233.6
VALVE GAS	784225.6	3326185.2	90 03 09.77400	30 02 01.47300	3686044.3	560027.6
VALVE WATER	784224.0	3326207.1	90 03 09.81262	30 02 02.18489	3686040.1	560099.4
VAULT	785101.4	3326283.1	90 02 37.02210	30 02 03.91600	3688920.1	560306.6
WALL	782963.7	3325951.9	90 03 57.05250	30 01 54.95615	3681896.3	559323.1
WALL-FENCE	783009.3	3325952.9	90 03 55.35118	30 01 54.95063	3682045.8	559324.2
WATER	784951.8	3326252.1	90 02 42.63039	30 02 03.03563	3688428.2	560212.1
WATER	785181.0	3326199.4	90 02 34.13460	30 02 01.13358	3689177.1	560028.4
WATER COVER	785500.6	3325881.7	90 02 22.52380	30 01 50.55757	3690209.6	558971.6
WATER FOUNT	784267.5	3326219.0	90 03 08.17910	30 02 02.53461	3686183.3	560136.4
WATER PIPE	783271.0	3326010.2	90 03 45.53786	30 01 56.59181	3682906.5	559499.5

Comment	UTM (Zone 15)		Geographic		State Plane, LA South	
	X, m	Y, m	Longitude	Latitude	X, U.S. ft	Y, U.S. ft
WATER VALVE	785192.6	3326268.6	90 02 33.63533	30 02 03.36904	3689218.4	560254.7
WATERFOUN	782995.0	3325992.0	90 03 55.84700	30 01 56.23116	3682000.8	559453.0
WET AREA	785164.6	3326257.6	90 02 34.69002	30 02 03.03564	3689126.1	560220.0
XING	783982.9	3326074.8	90 03 18.93004	30 01 58.09386	3685243.4	559677.2

Note: NAD83.

Appendix B: EM31 Conductivity and In-phase Results, LPV101, LPV102, LPV103, and LPV104

Figure B1. LPV101_A conductivity map.

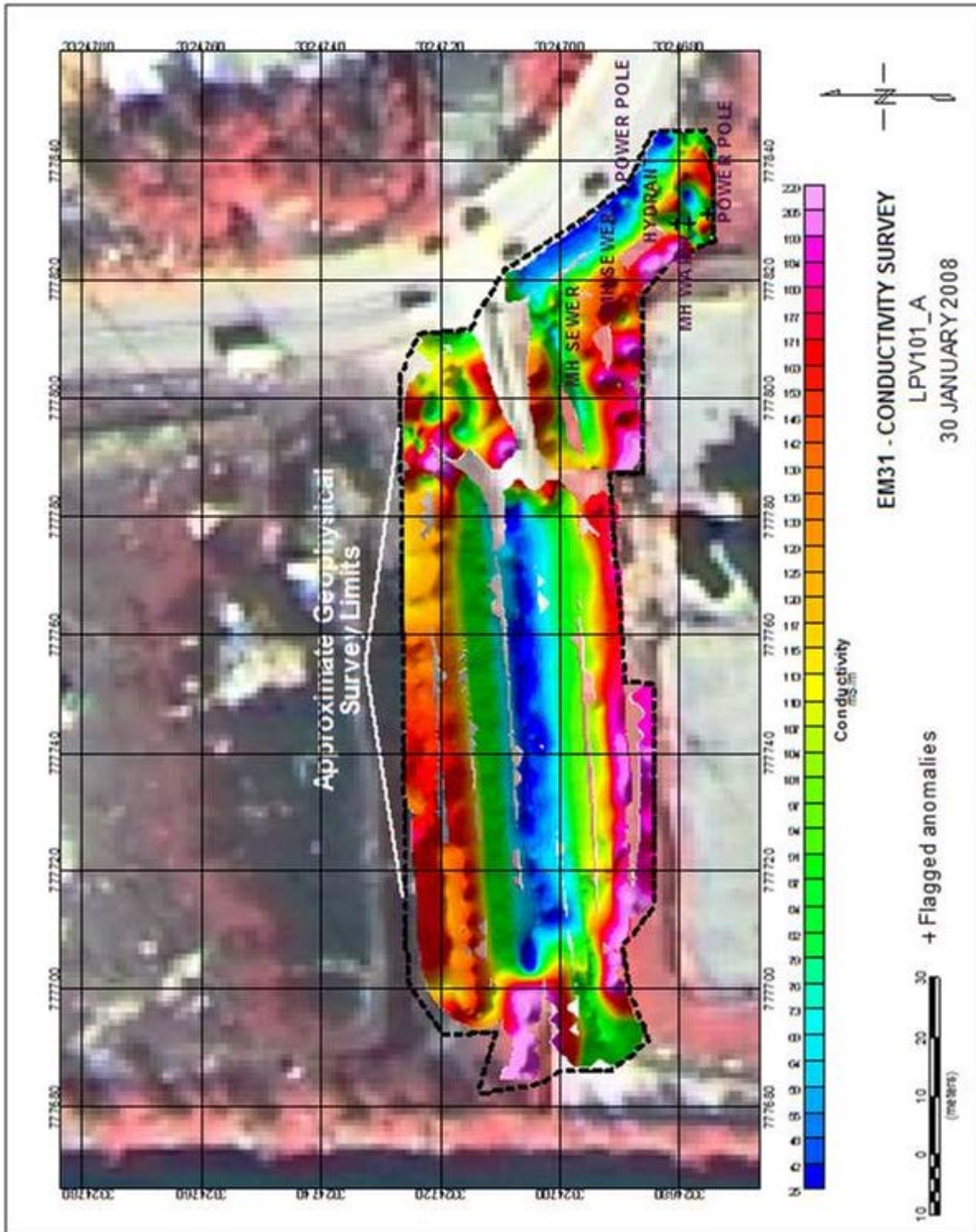


Figure B2. LPV101_A EM31 in-phase map.

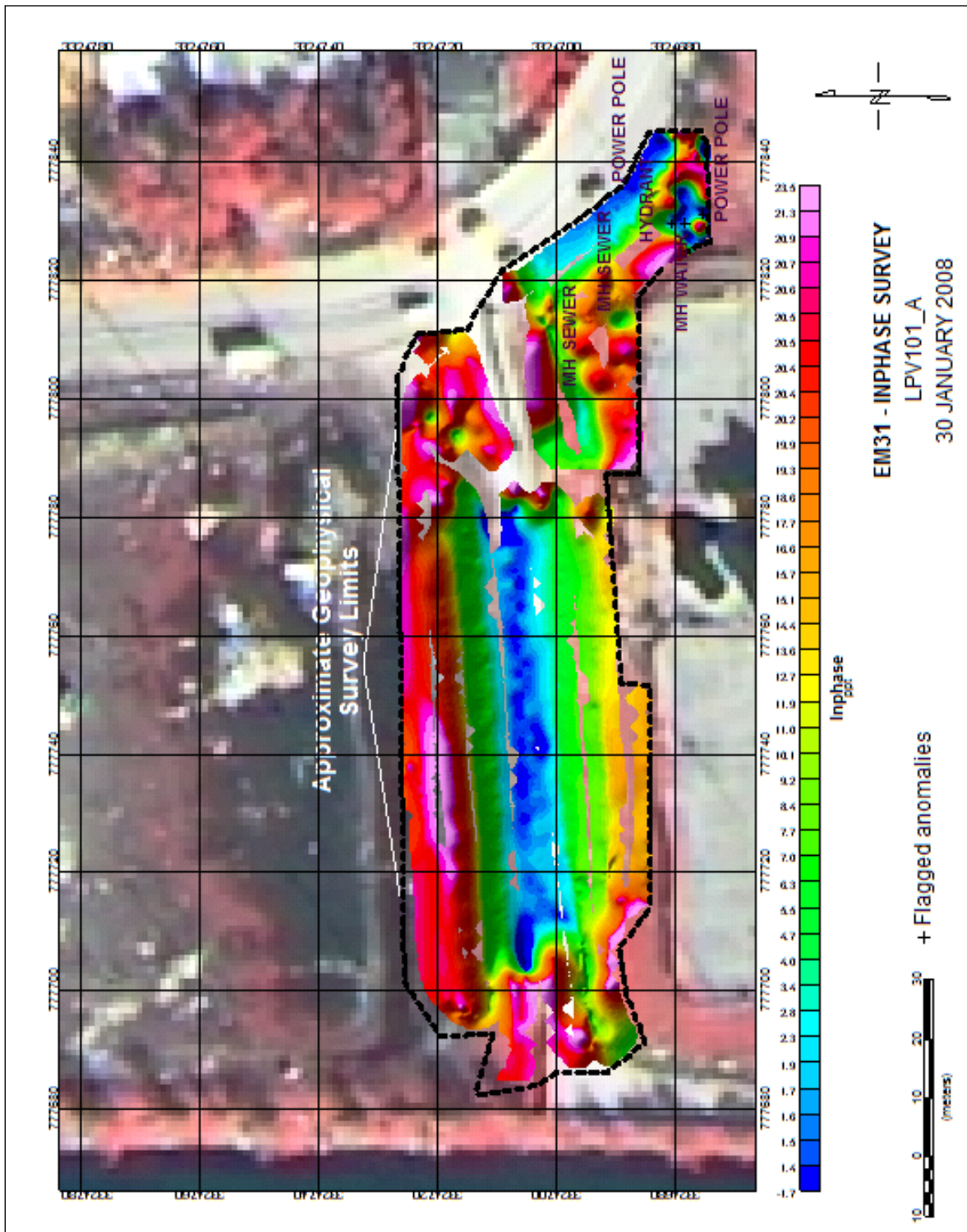


Figure B3. LPV101_B EM31 conductivity map.

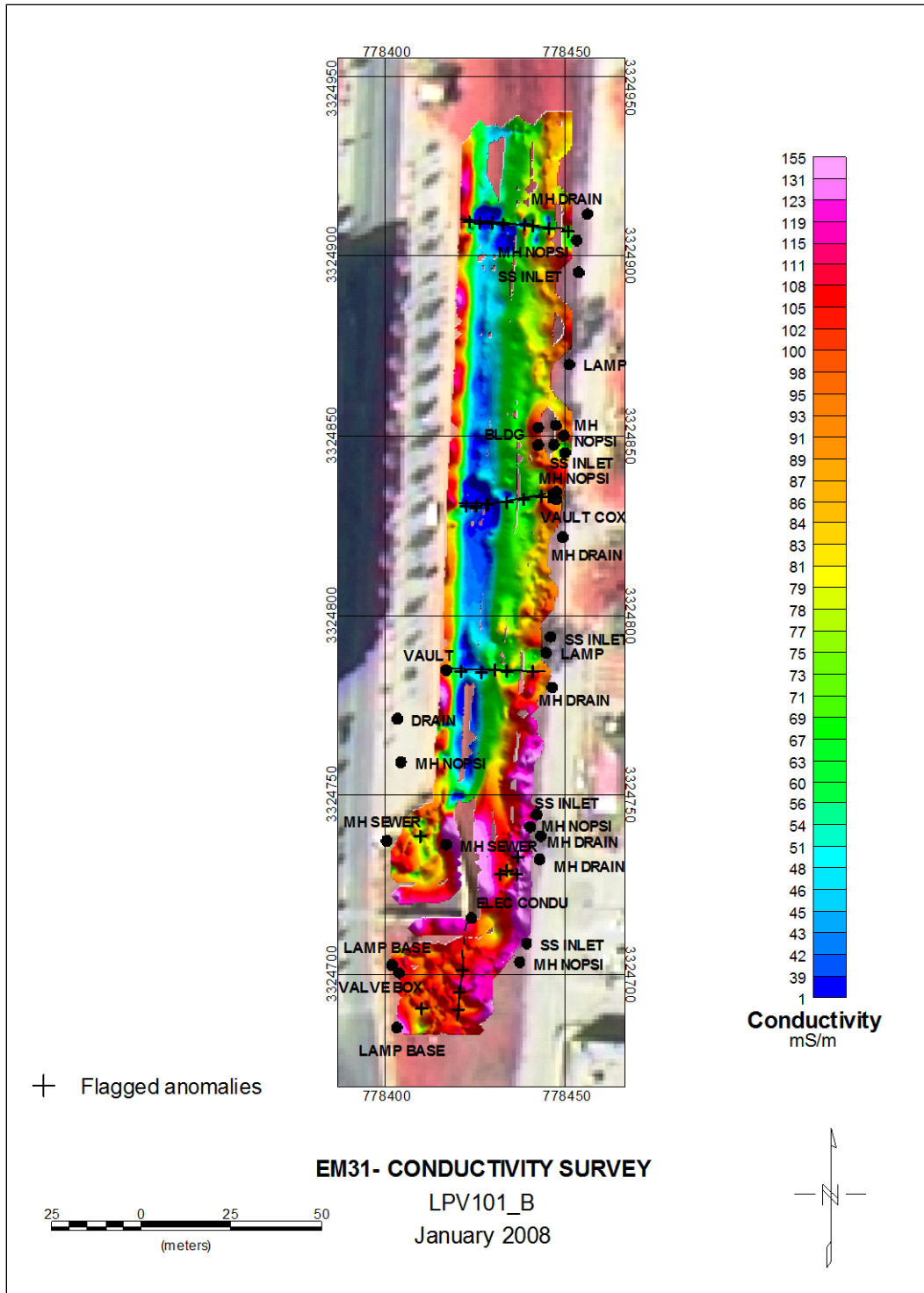


Figure B4. LPV101_B EM31 in-phase map.

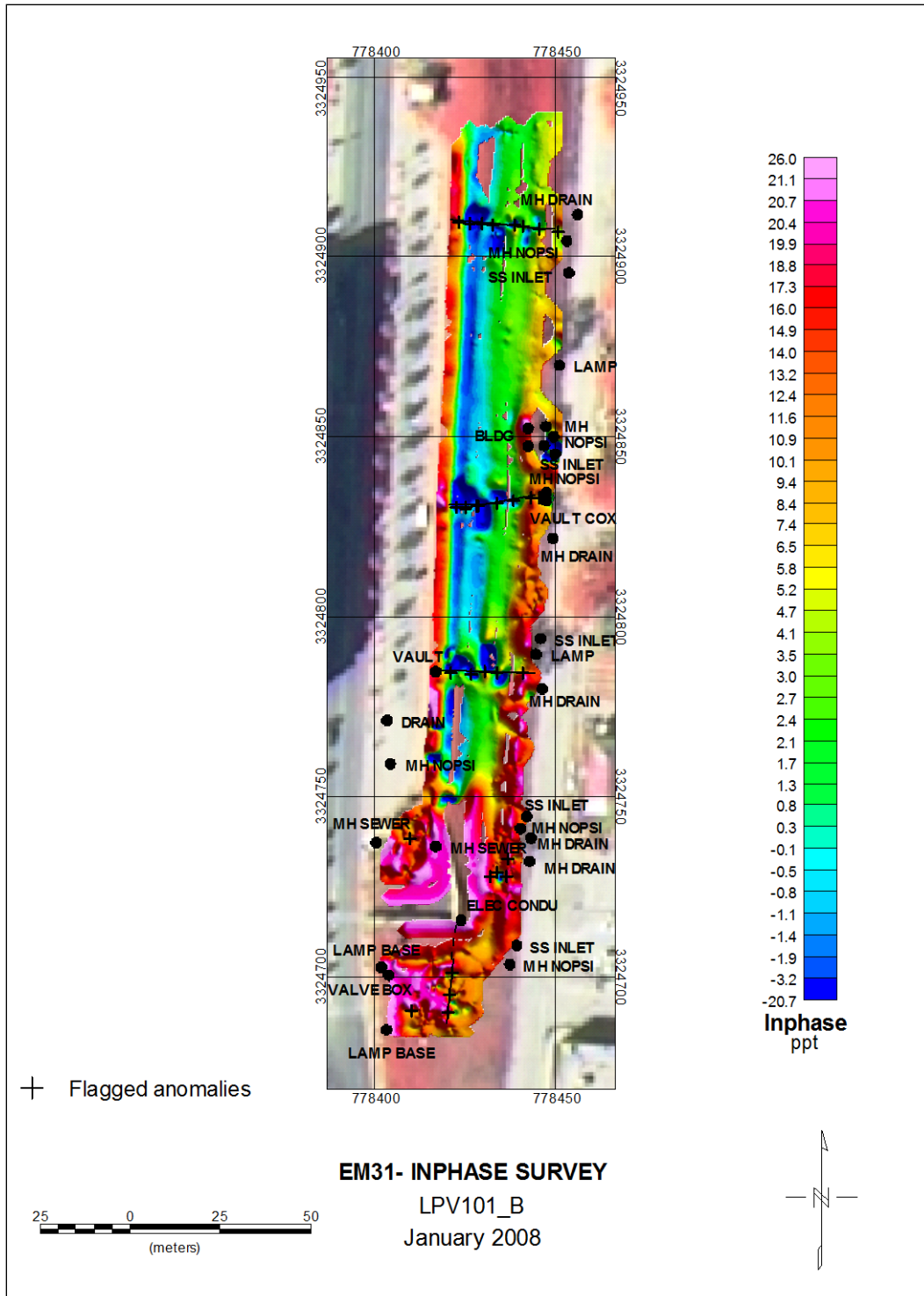


Figure B5. LPV101_C EM31 conductivity map.

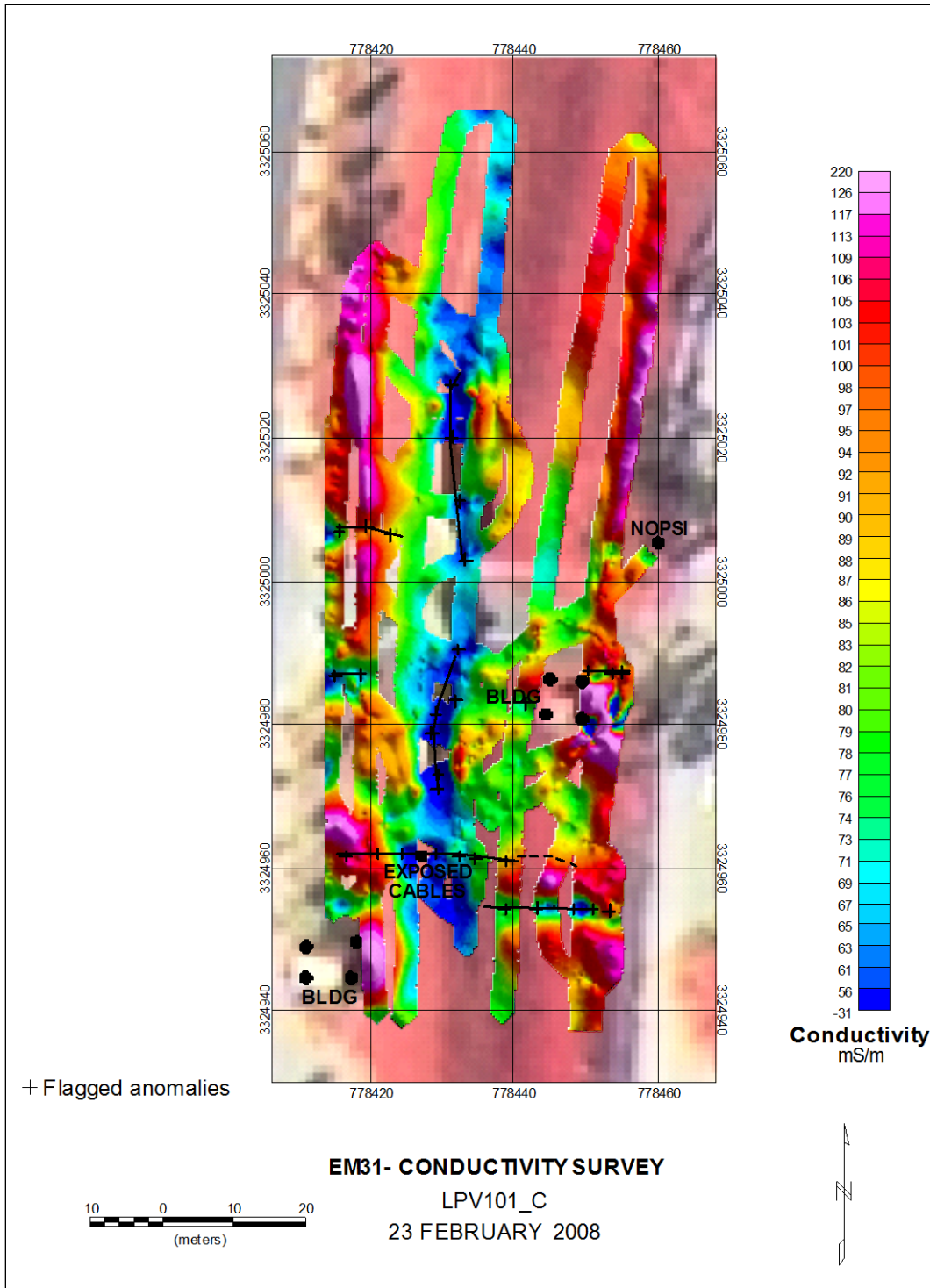


Figure B6. LPV101_C EM31 in-phase map.

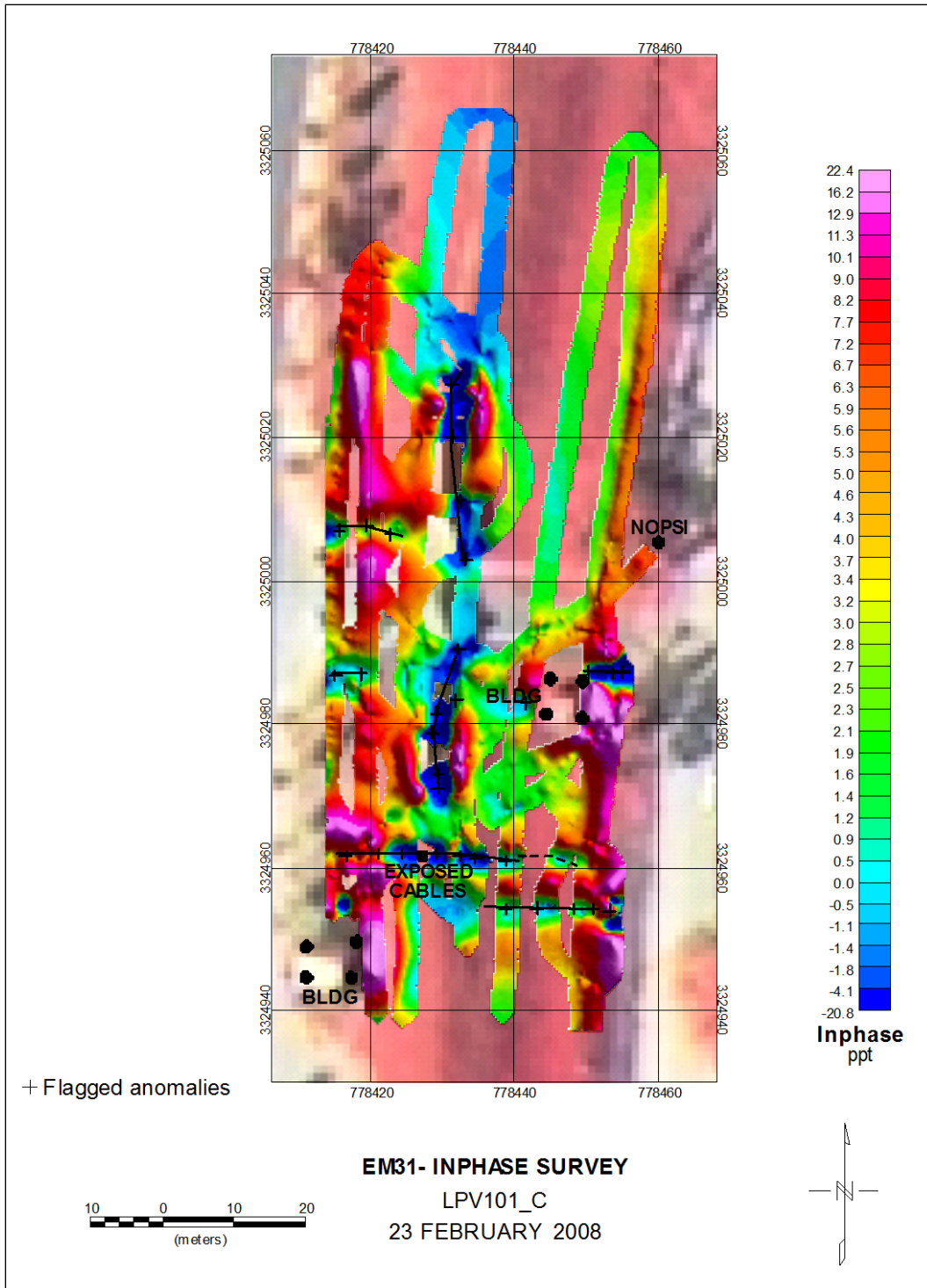


Figure B7. LPV102_A EM31 conductivity map.

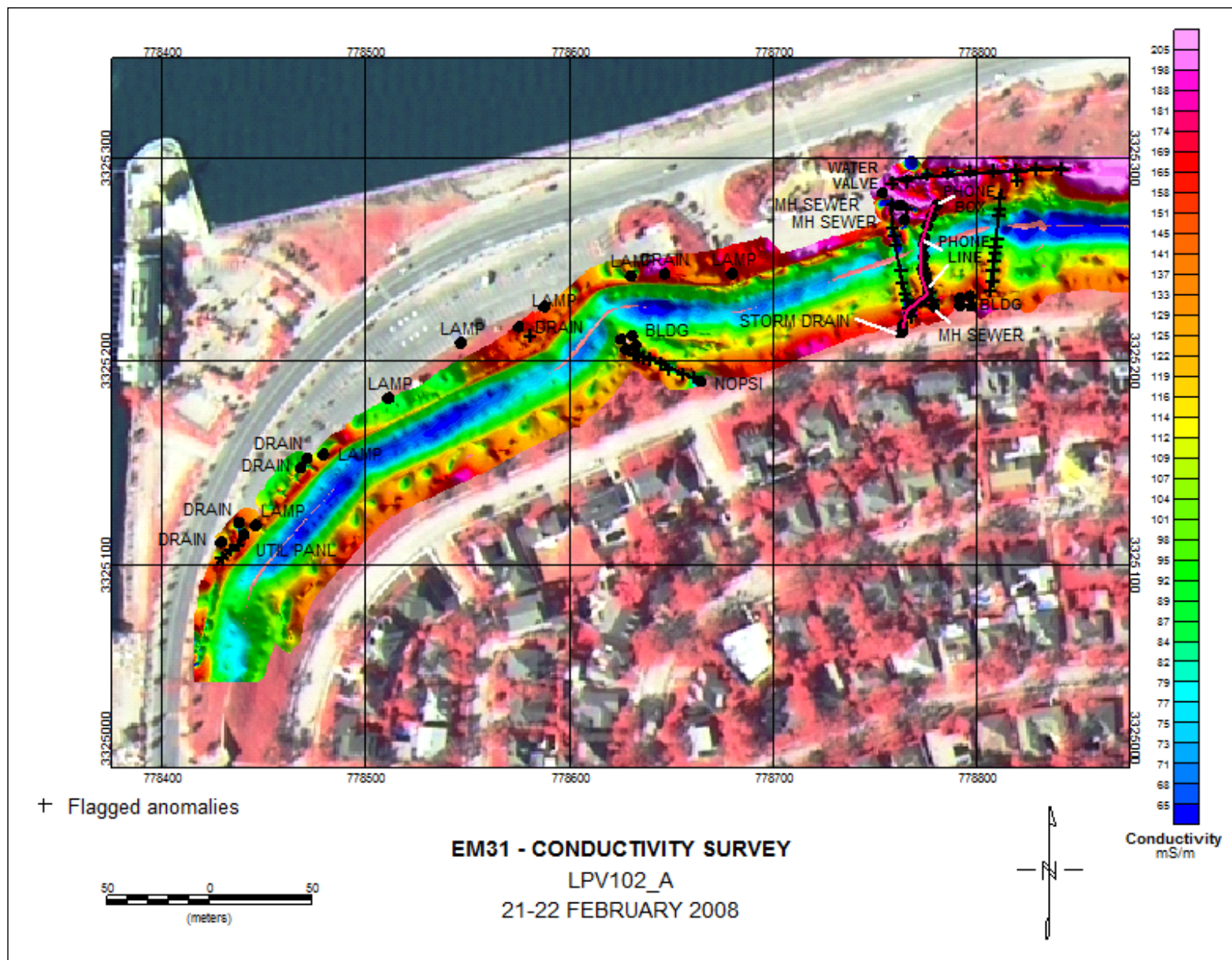


Figure B9. LPV102_B EM31 conductivity map.

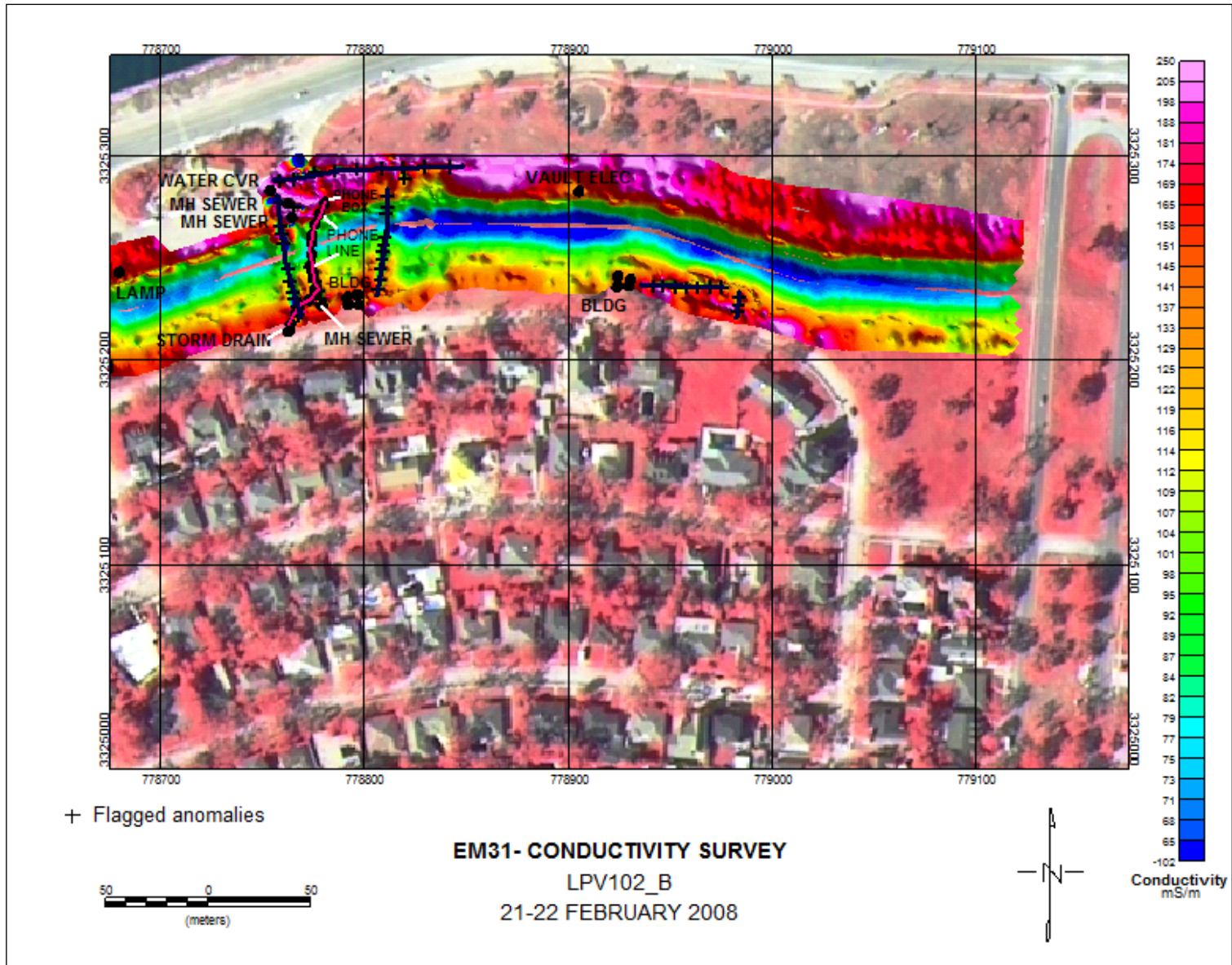


Figure B10. LPV102_B EM31 in-phase map.

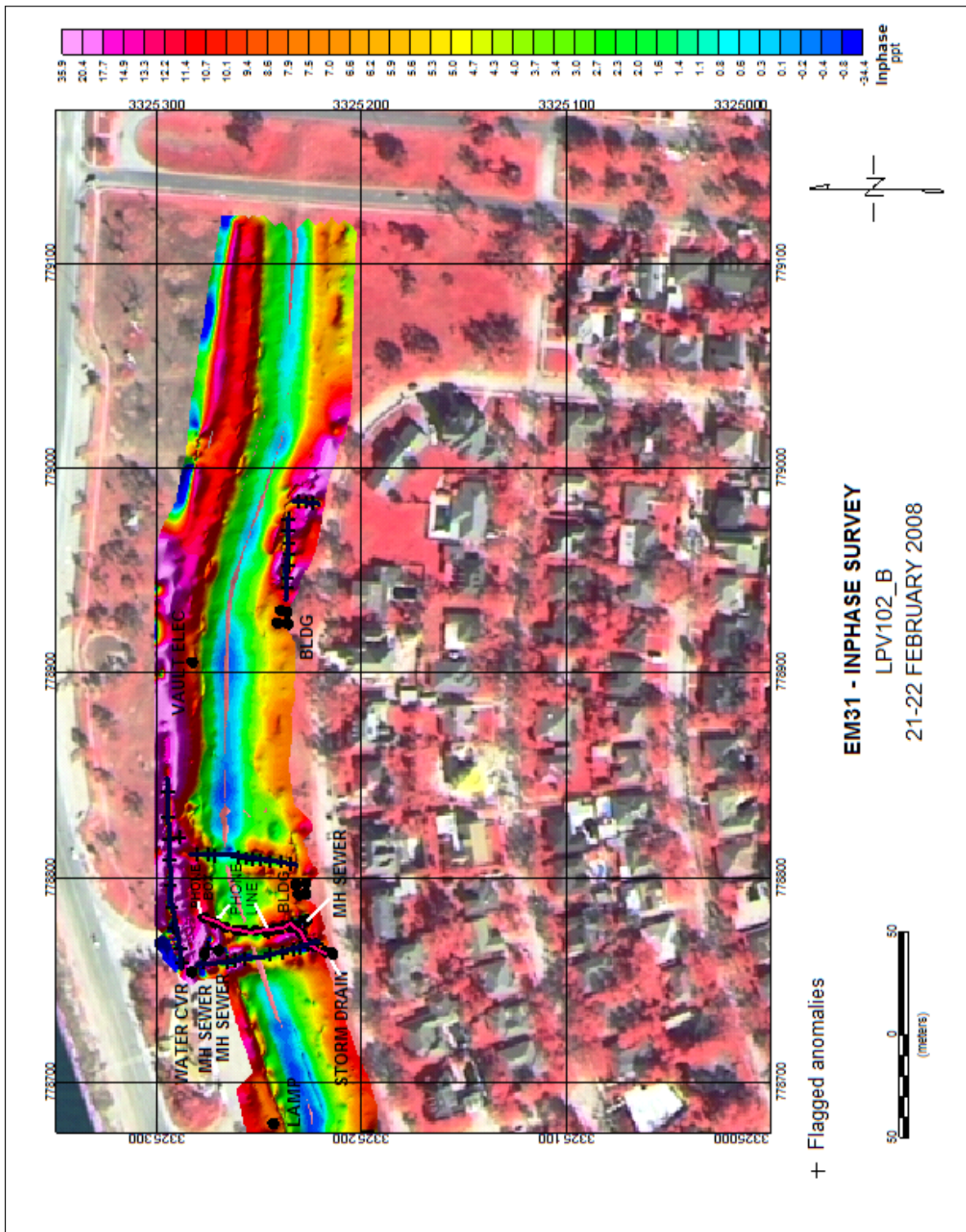


Figure B11. LPV102_C EM31 conductivity map.

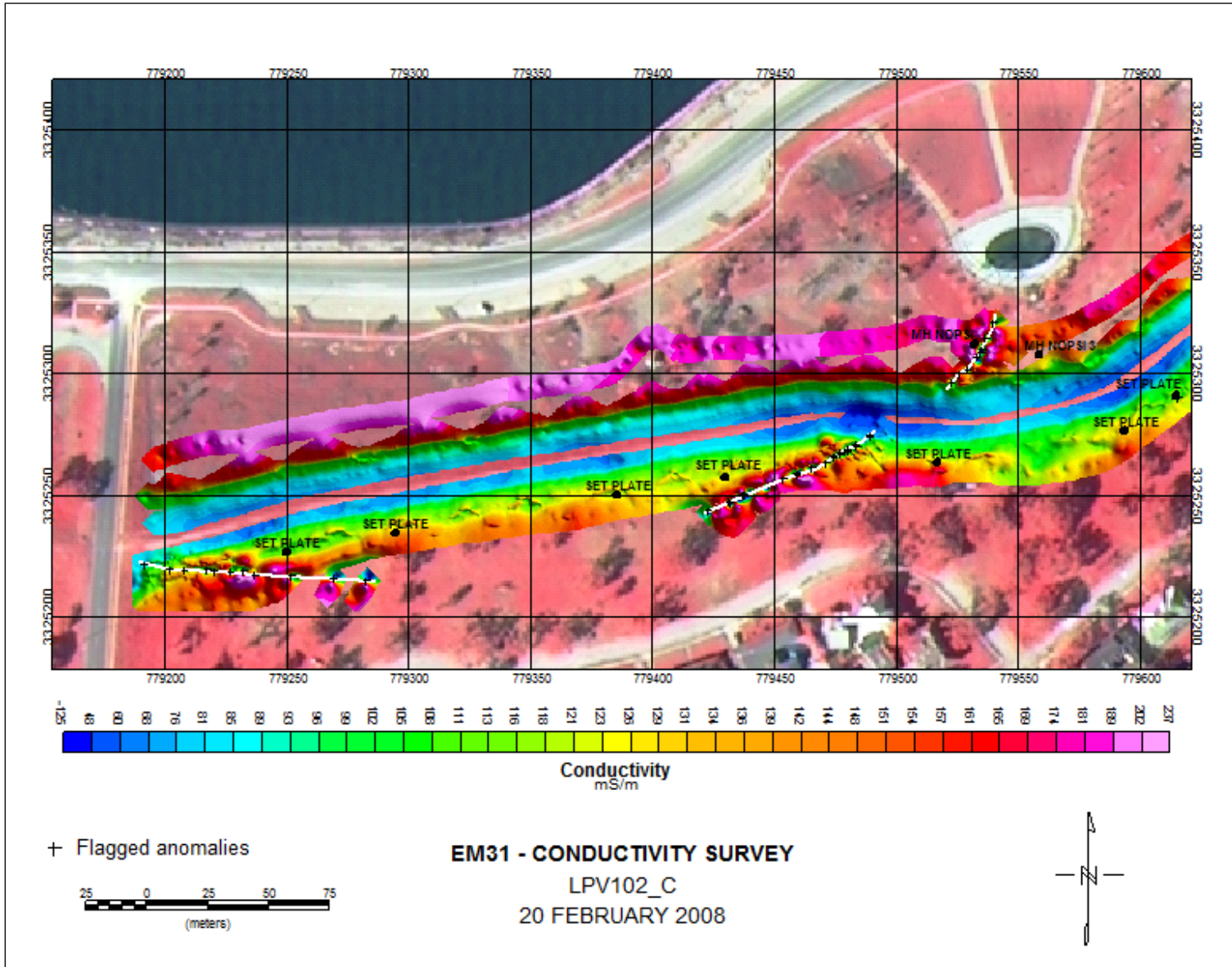


Figure B12. LPV102_C EM31 in-phase map.

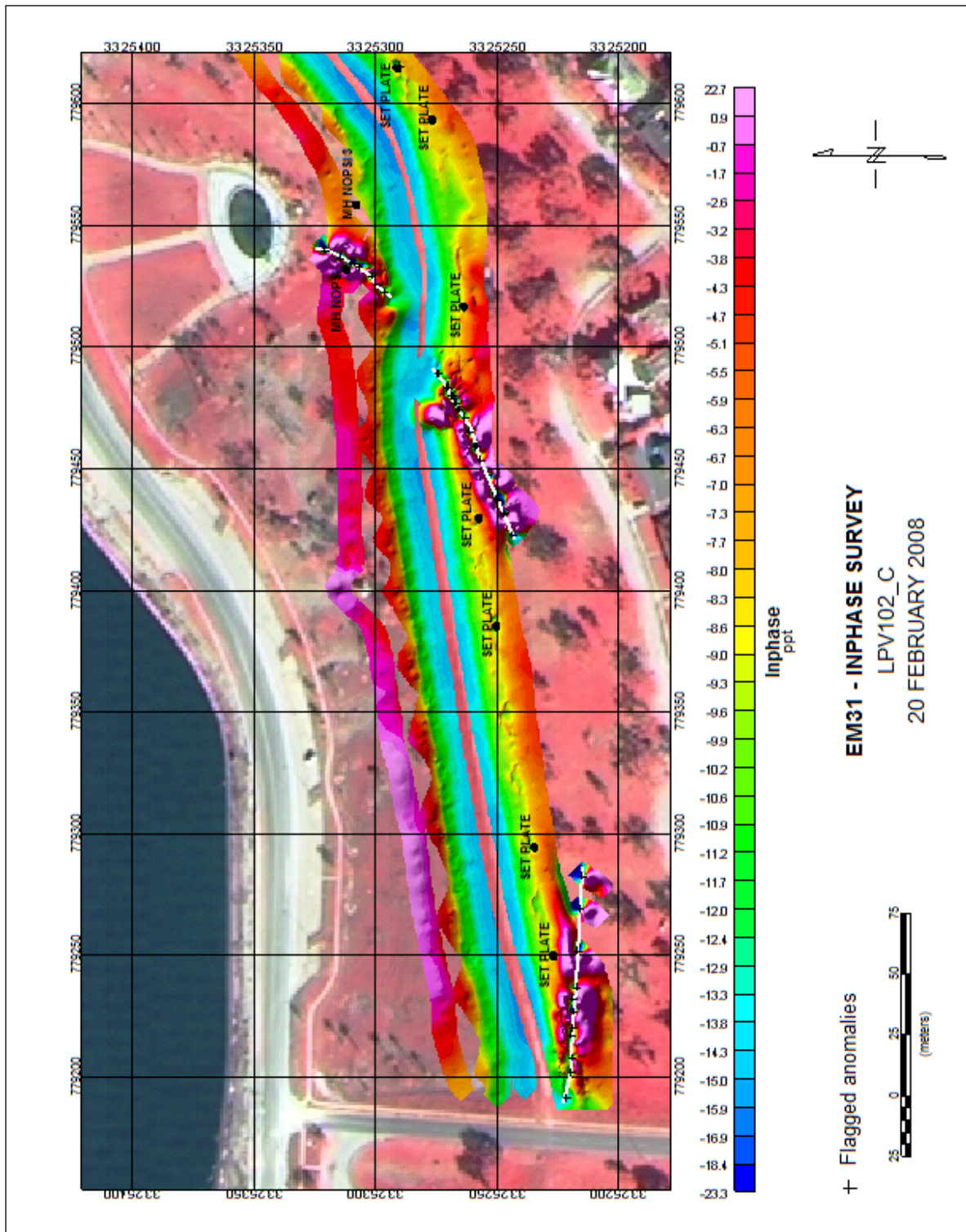


Figure B13. LPV102_D EM31 conductivity map.

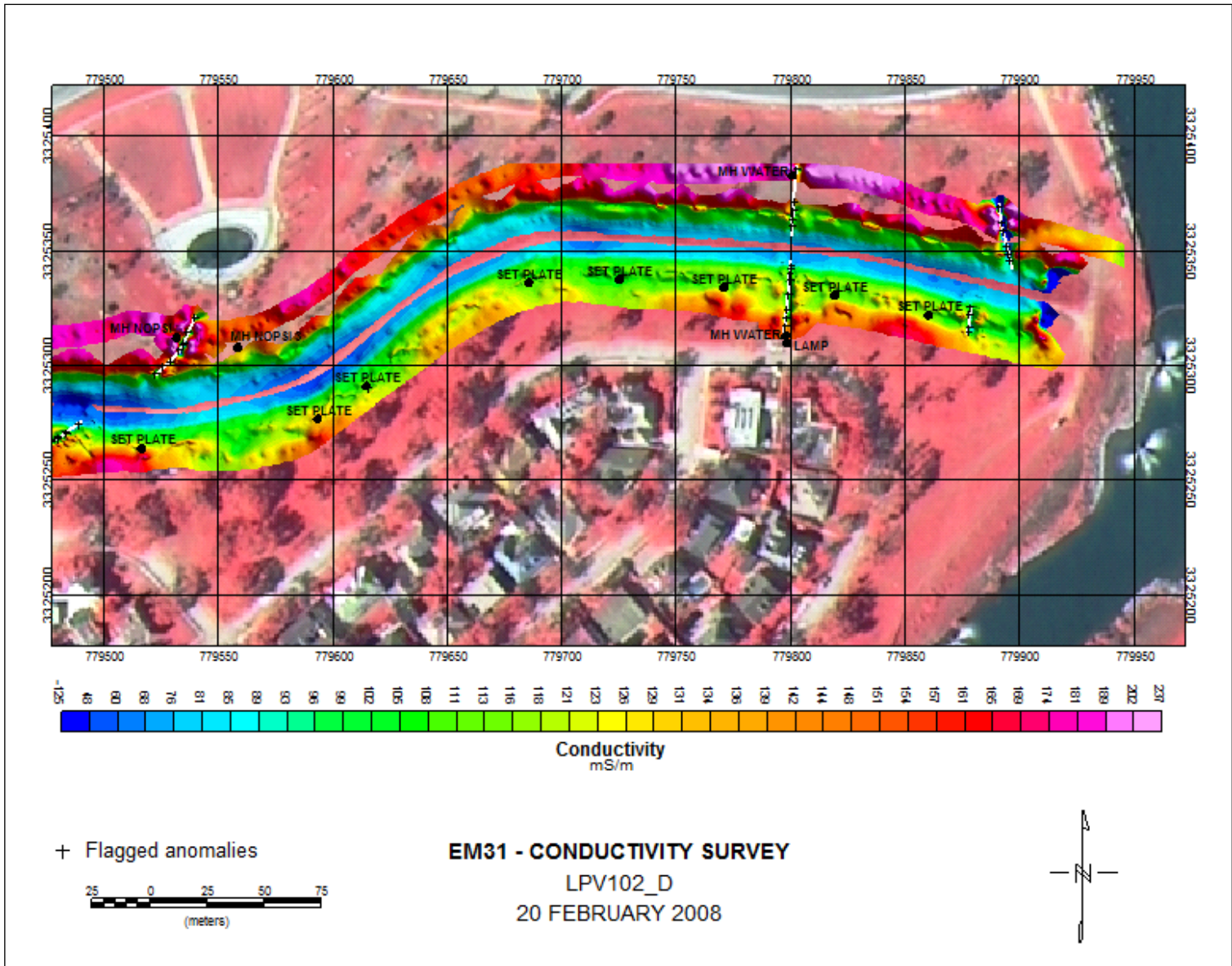


Figure B14. LPV102_D EM31 in-phase map.

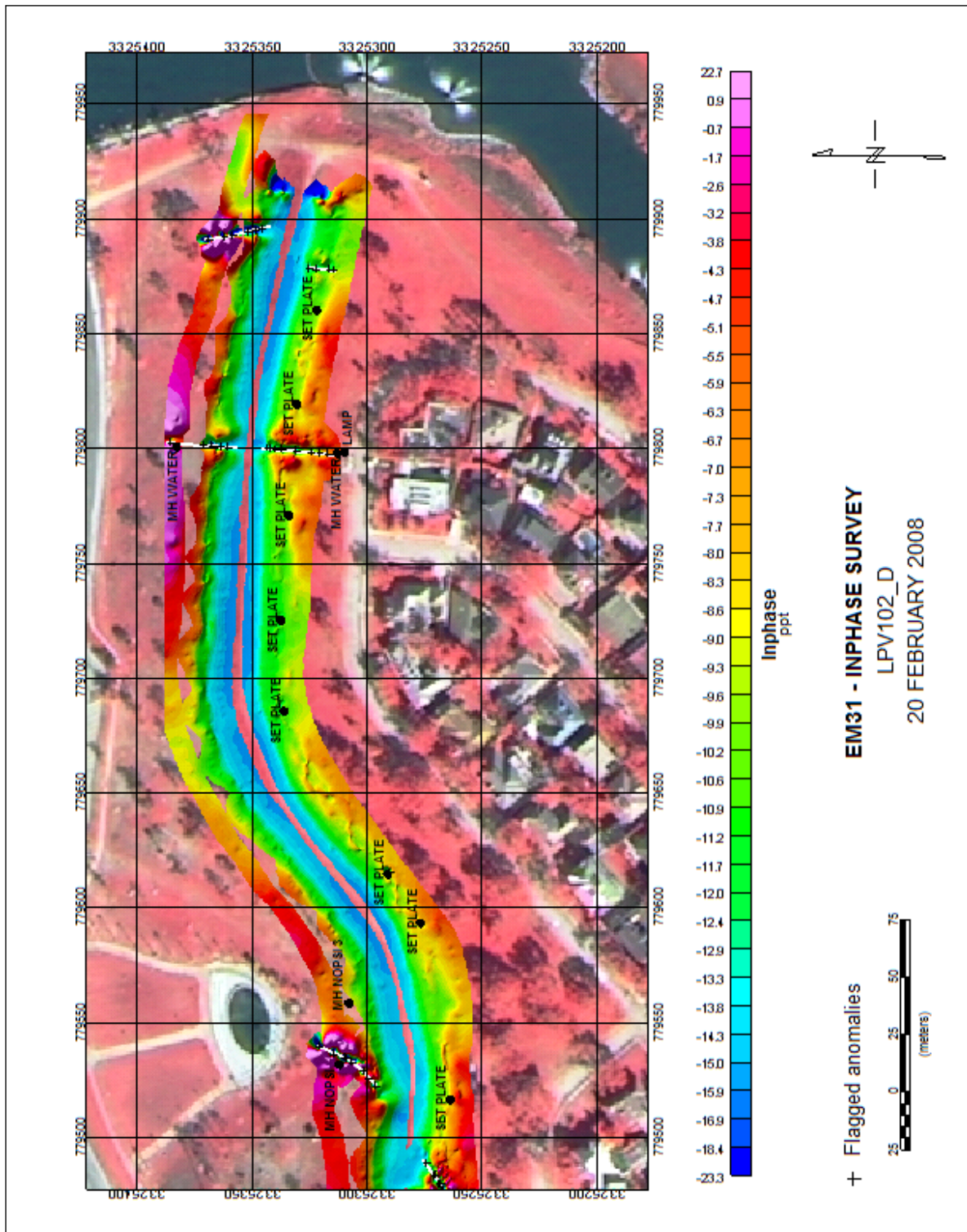


Figure B15. LPV102_E EM31 conductivity map.

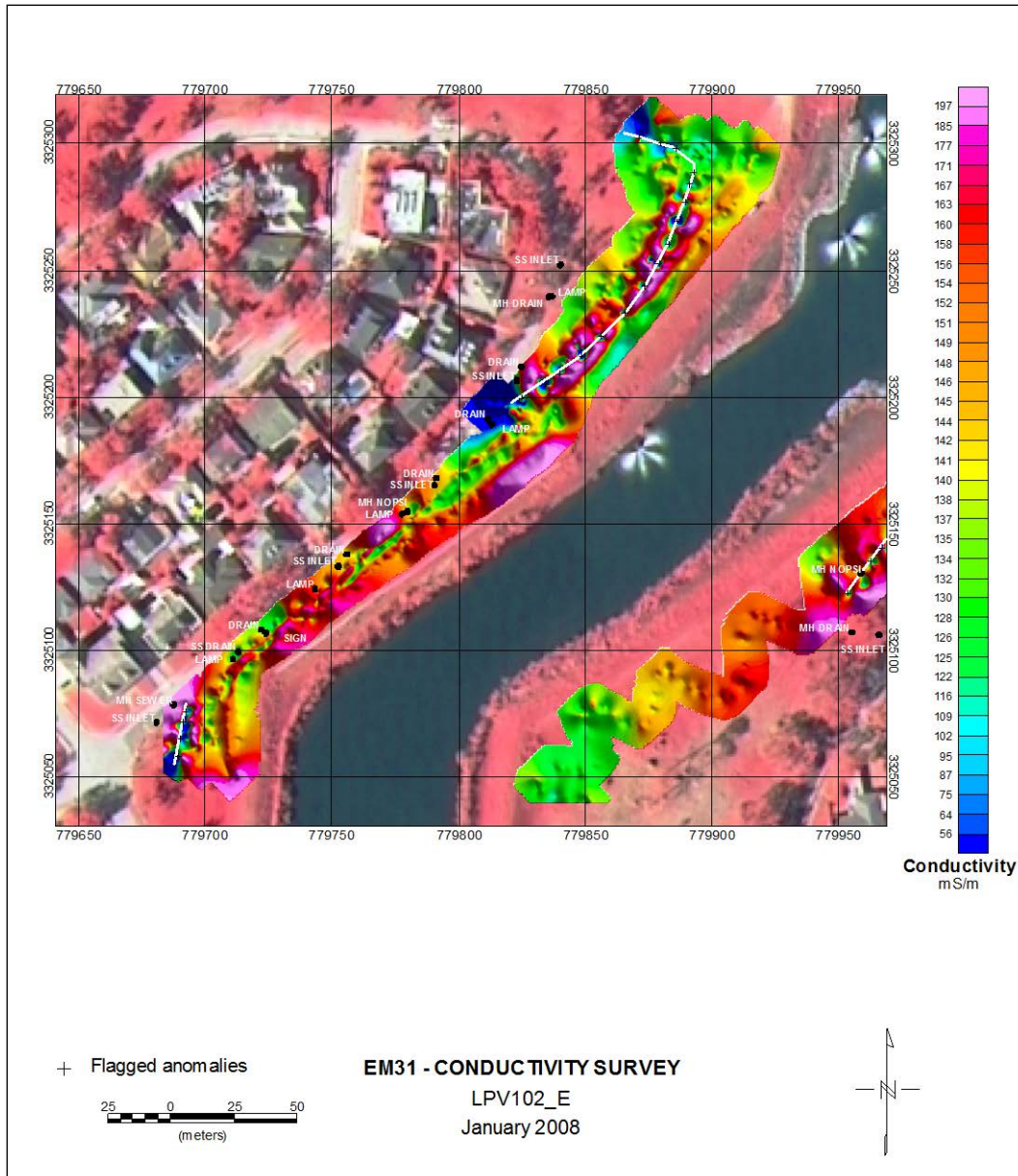


Figure B16. LPV102_E EM31 in-phase map.

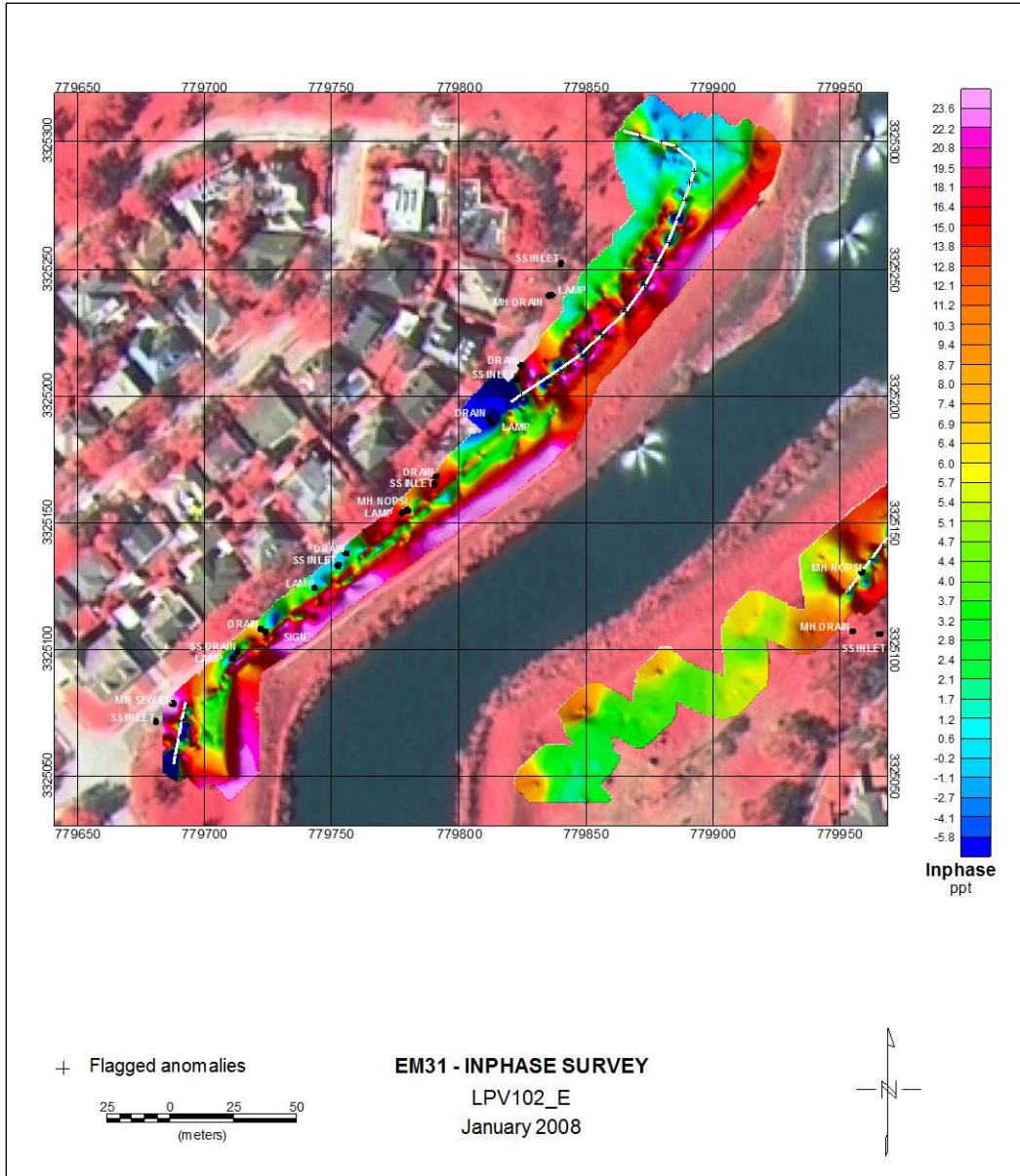


Figure B17. LPV103_AA EM31 conductivity map.

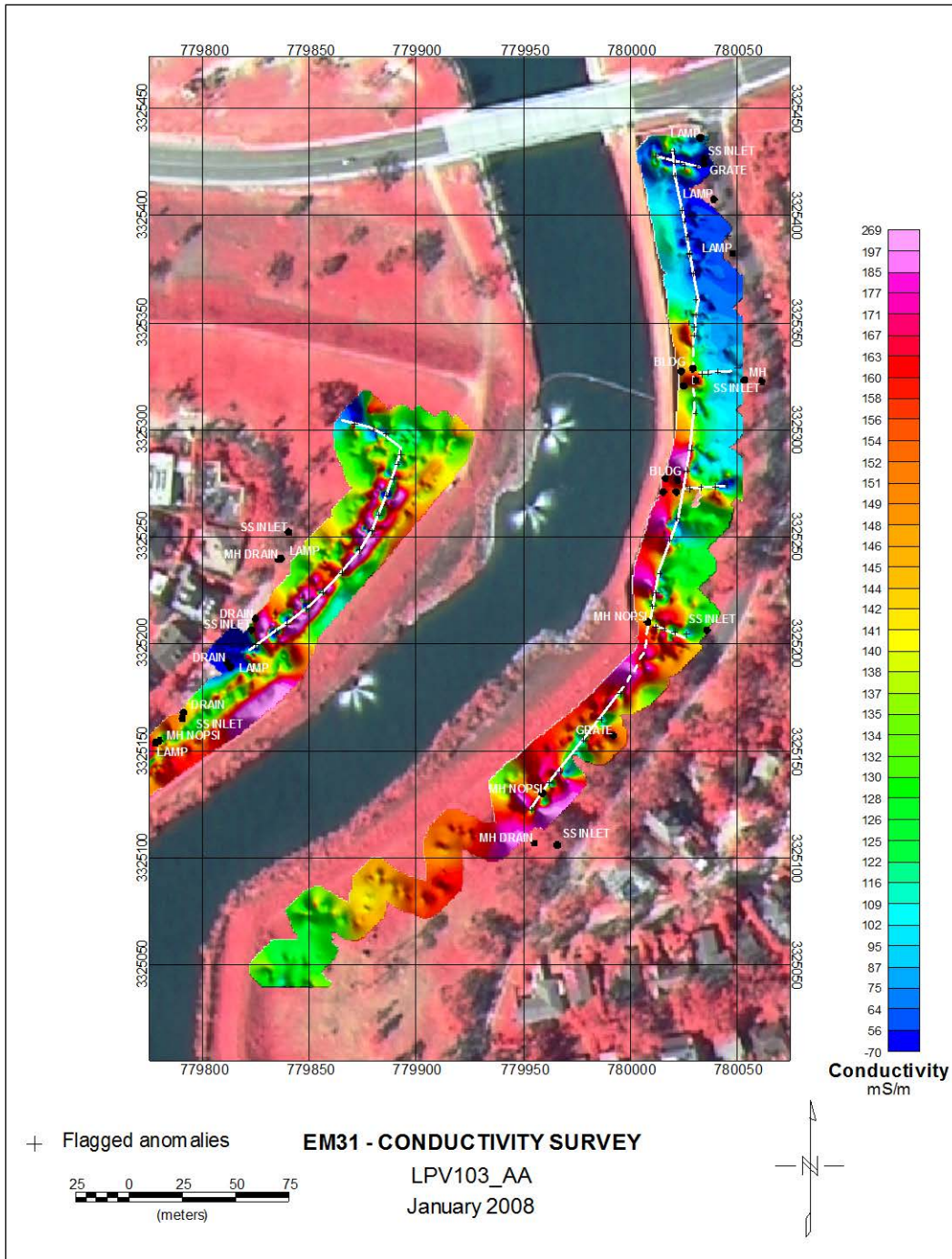


Figure B18. LPV103_AA EM31 in-phase map.

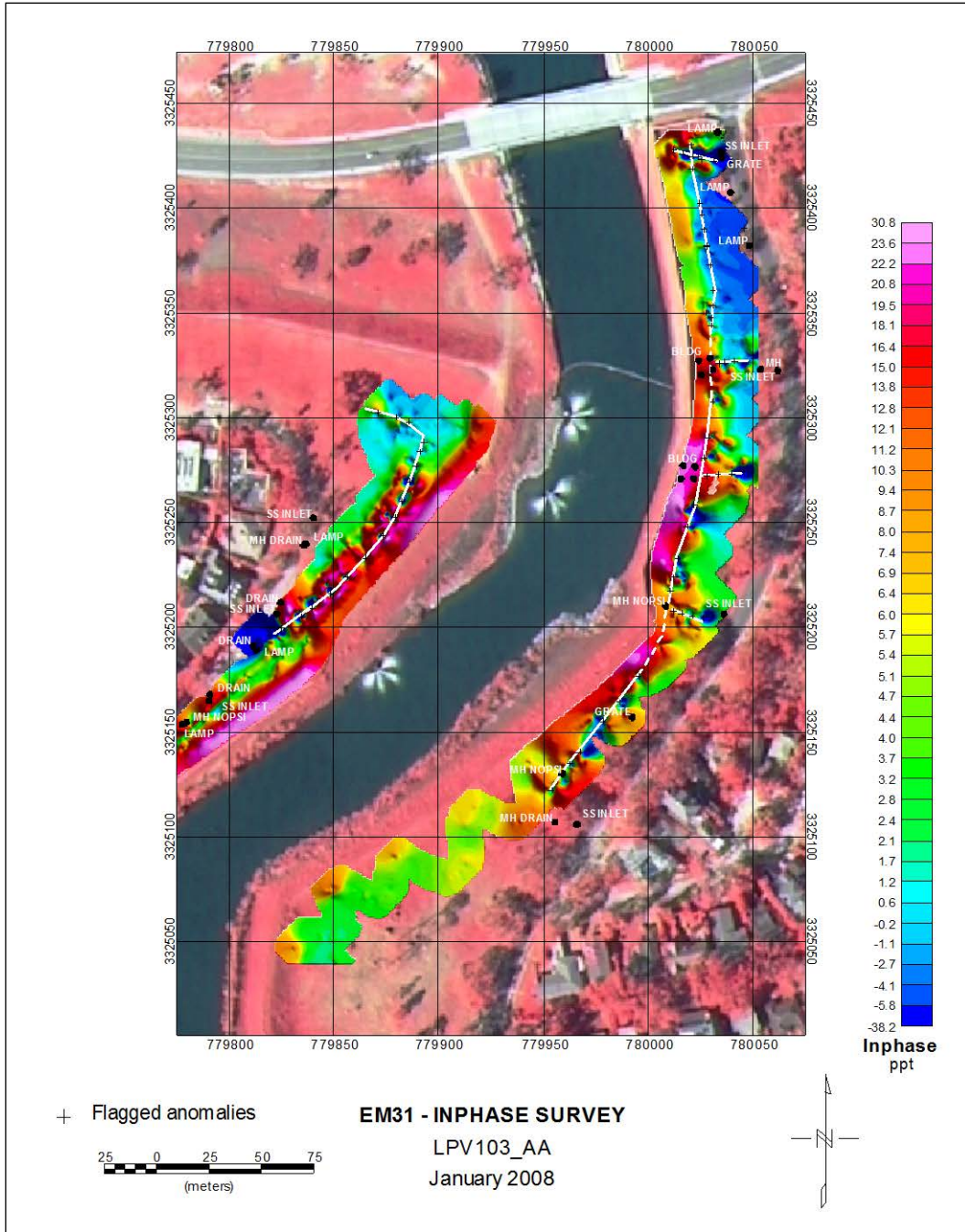


Figure B19. LPV103_A EM31 conductivity map.

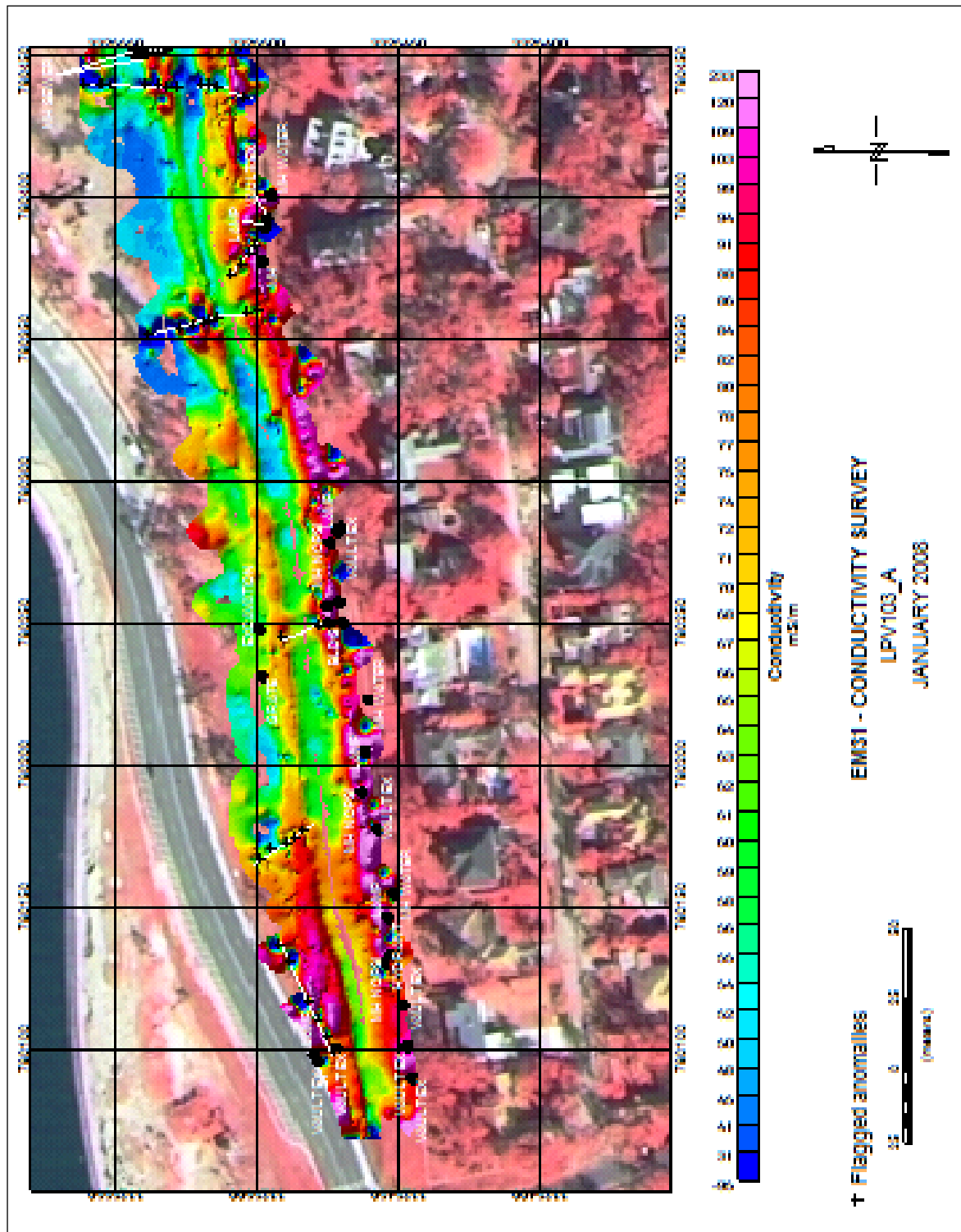


Figure B20. LPV103_A EM31 in-phase map.

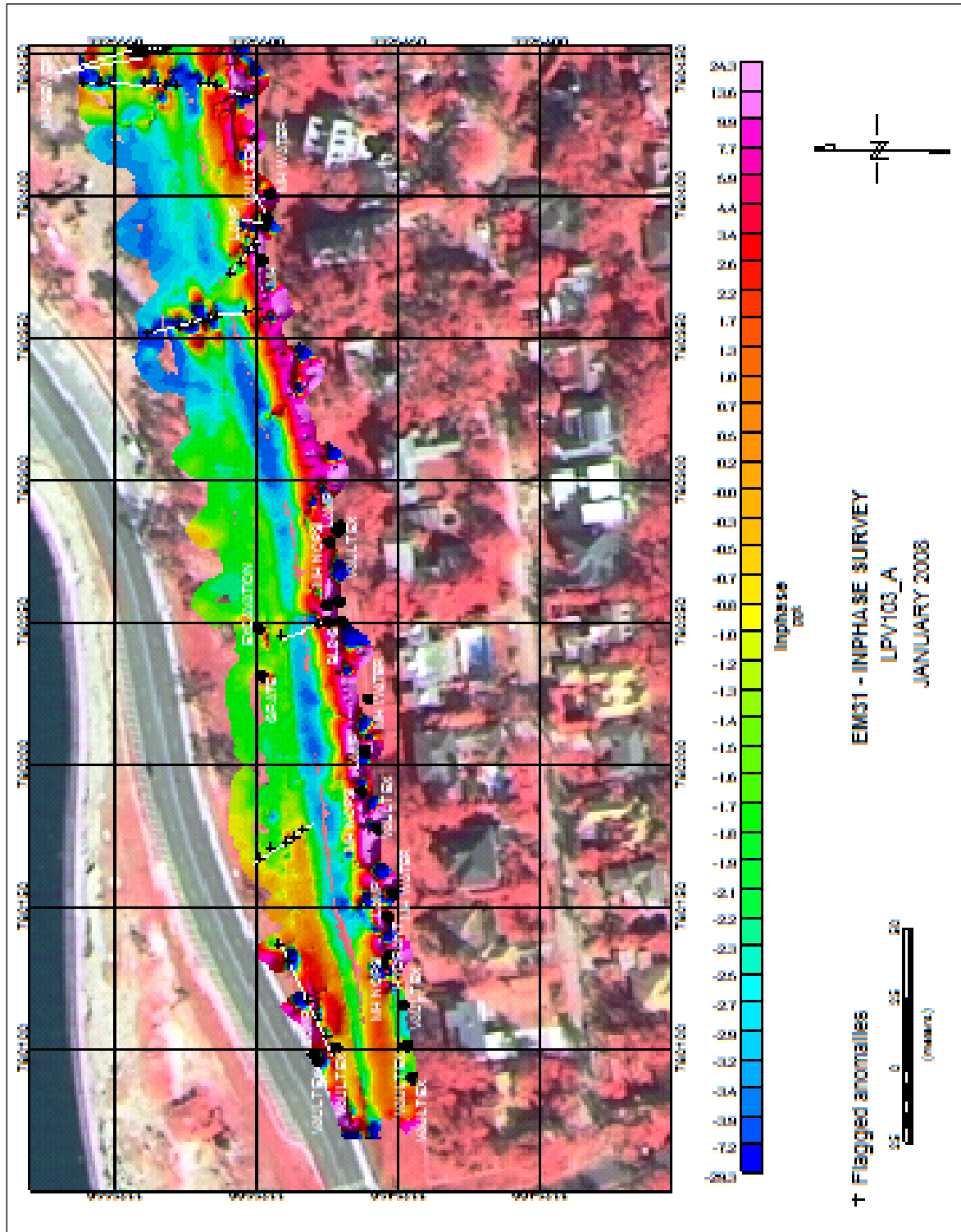


Figure B21. LPV103_B EM31 conductivity map.

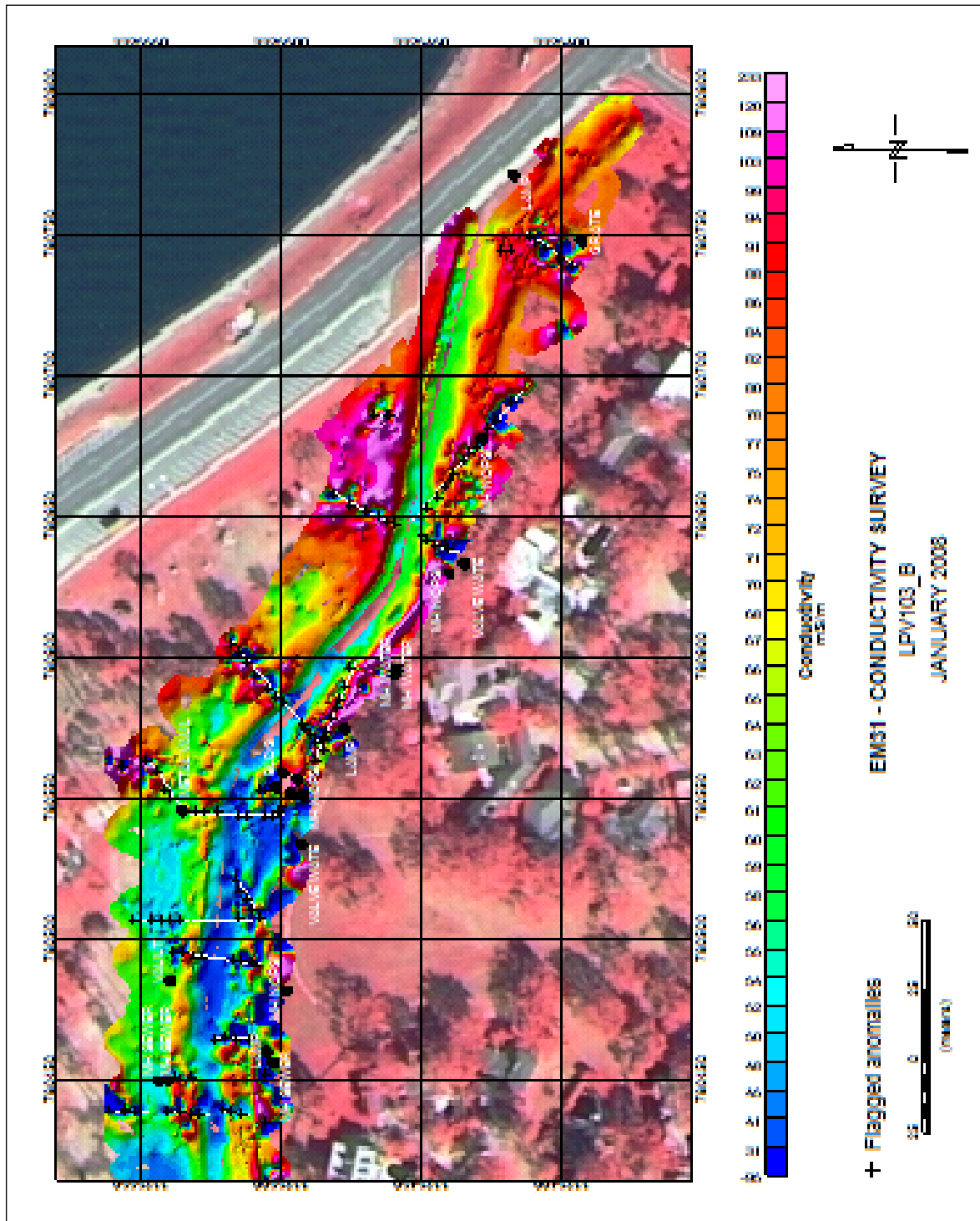


Figure B22. LPV103_B EM31 in-phase map.

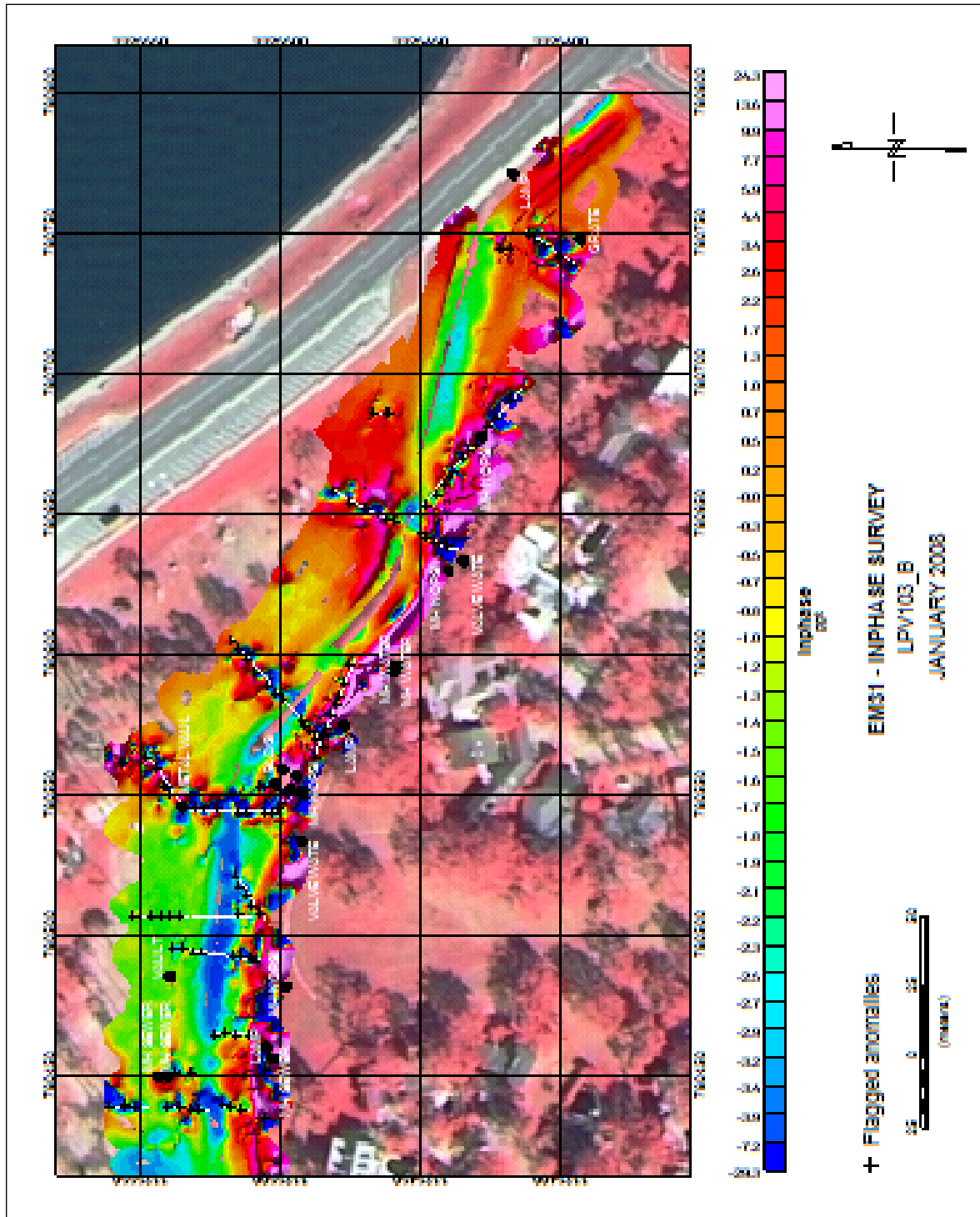


Figure B23. LPV103_C EM31 conductivity map.

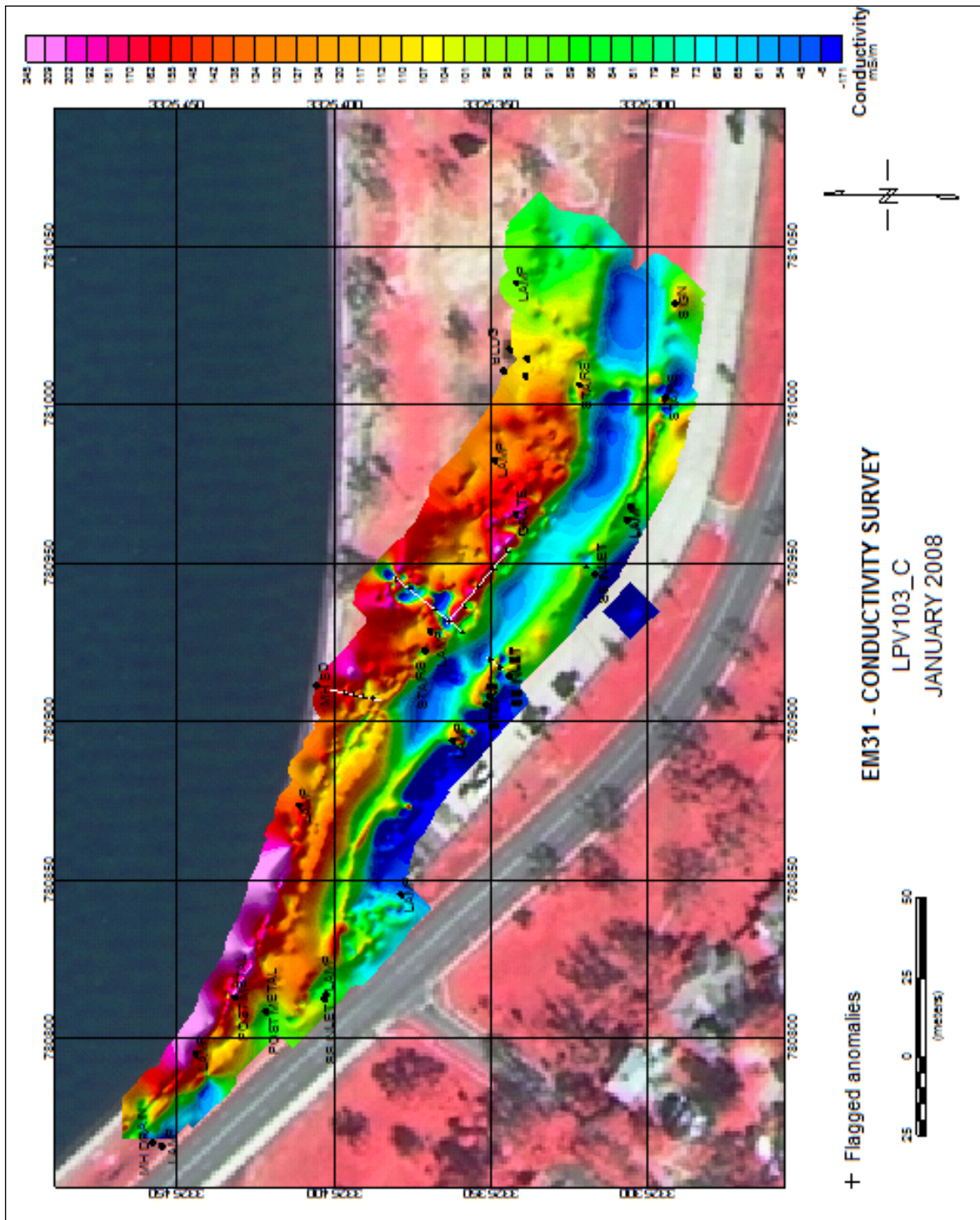


Figure B24. LPV103_C EM31 in-phase map.

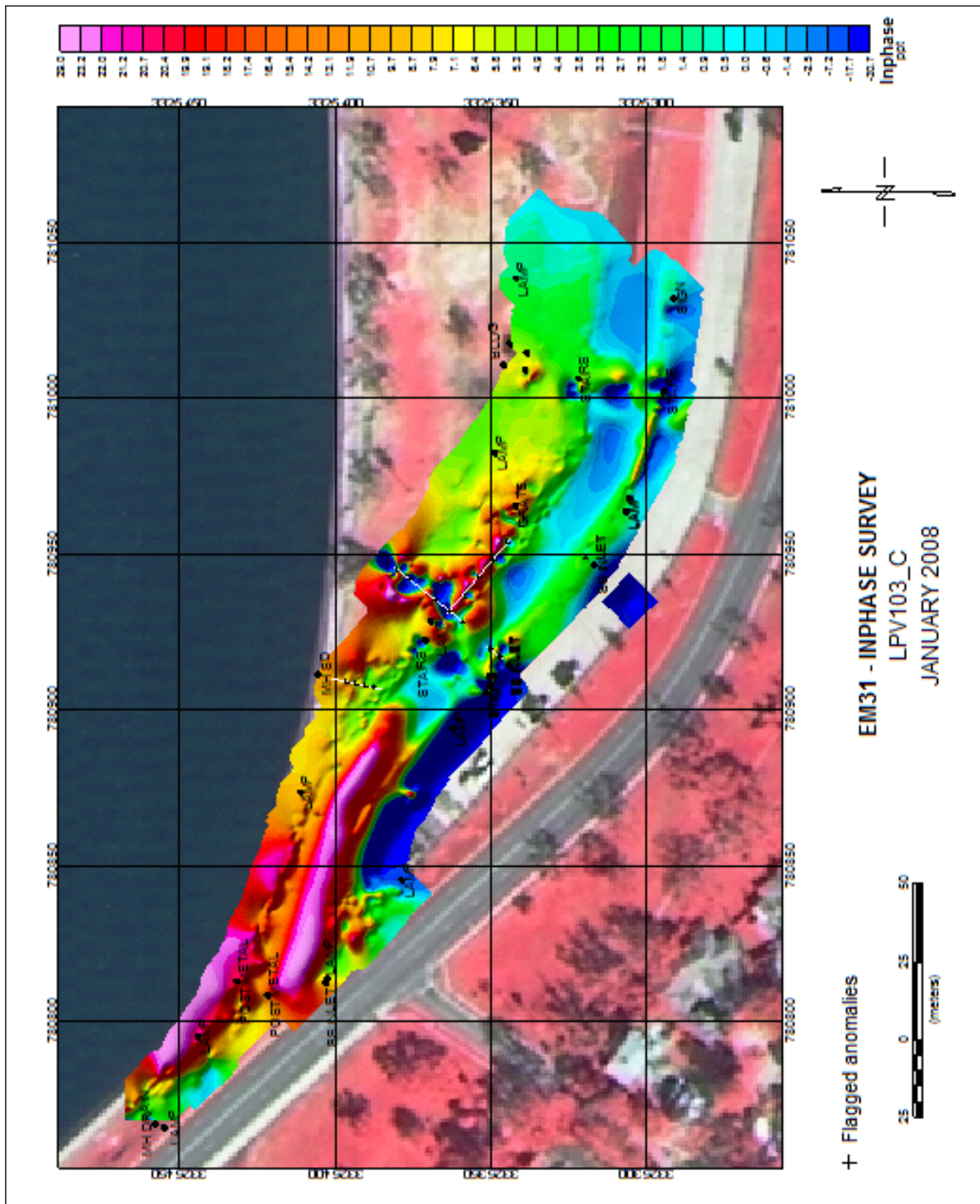


Figure B25. LPV103_D EM31 conductivity map.

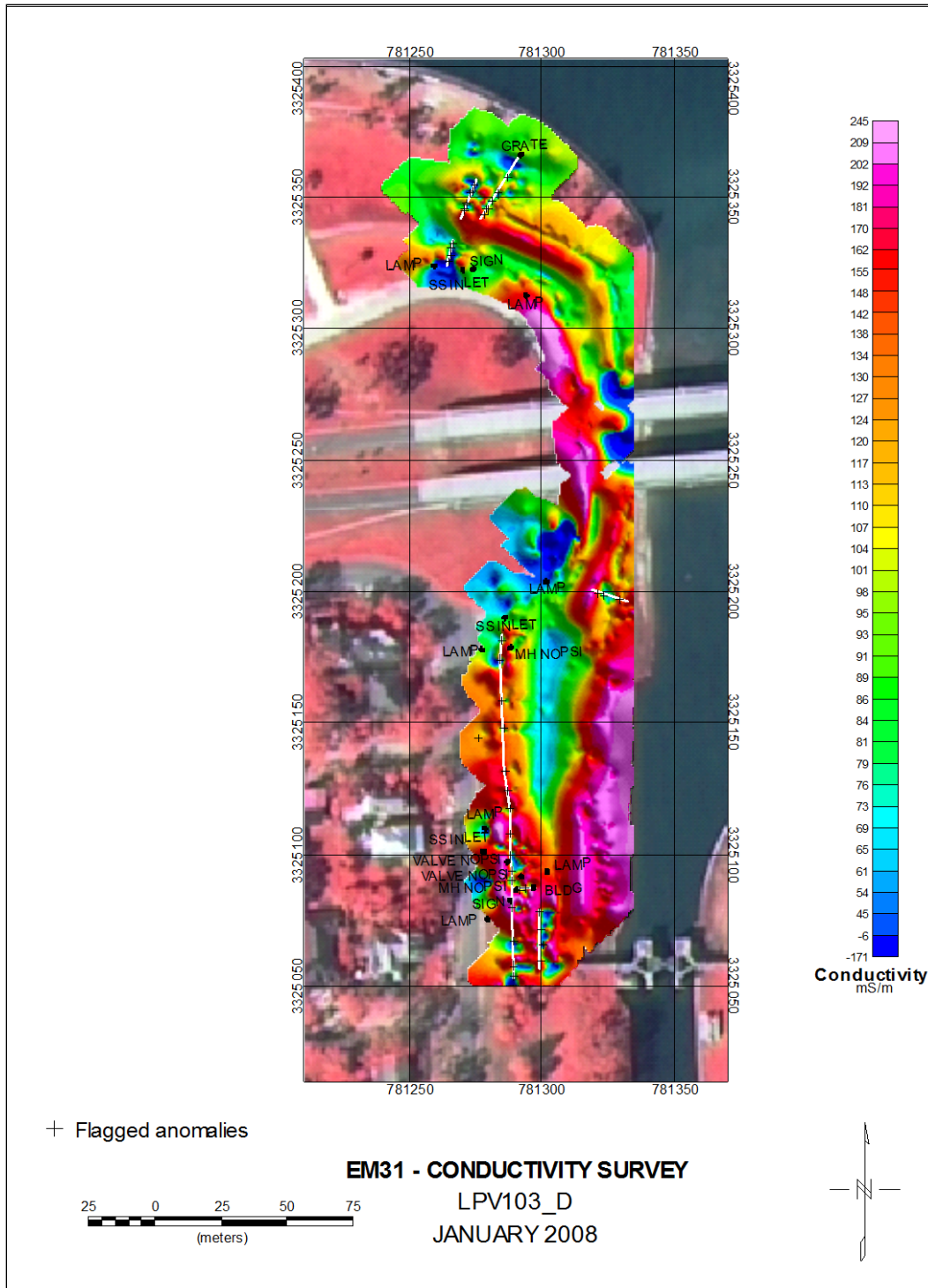


Figure B26. LPV103_D EM31 in-phase map.

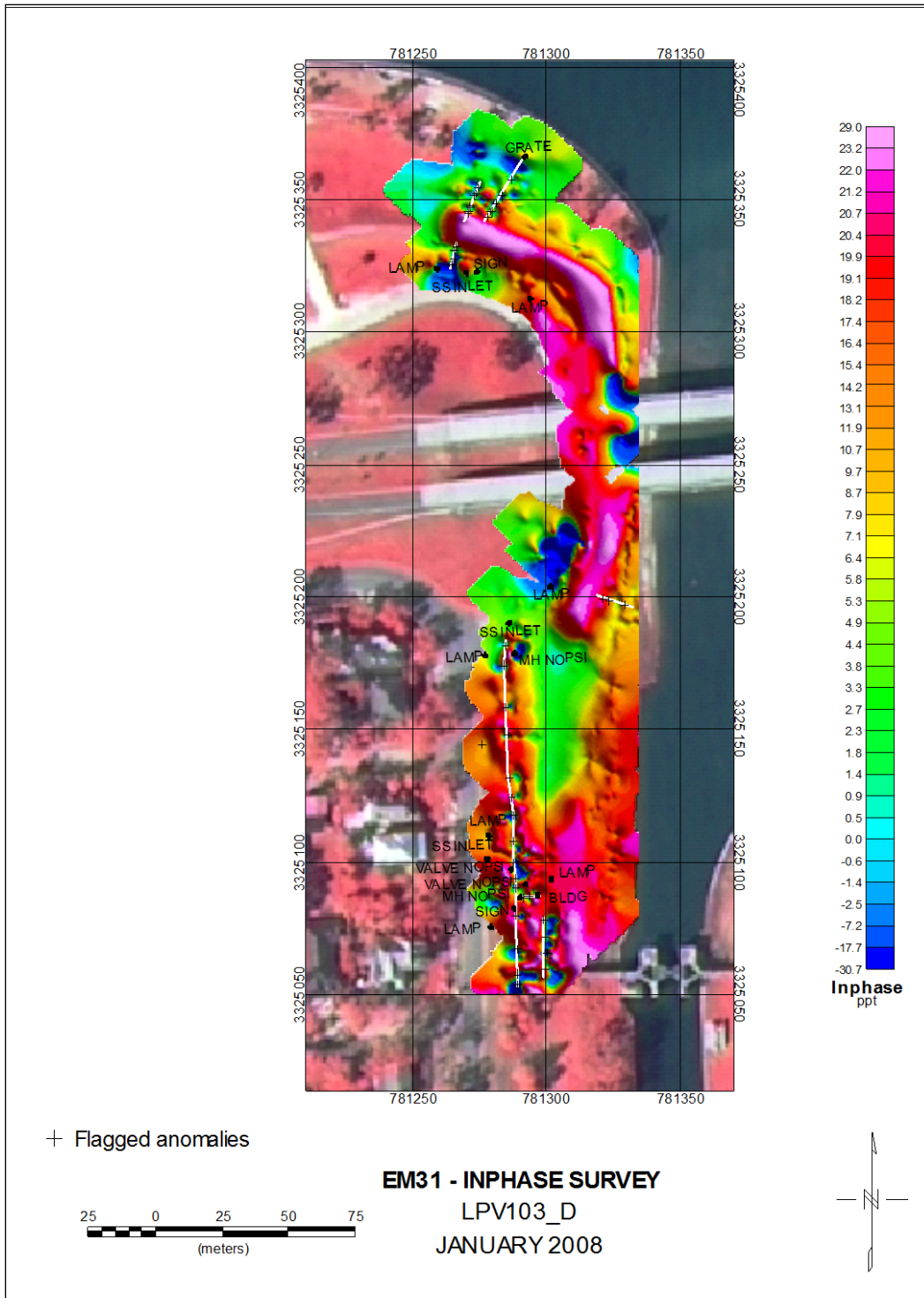


Figure B27. LPV103_E EM31 conductivity map.

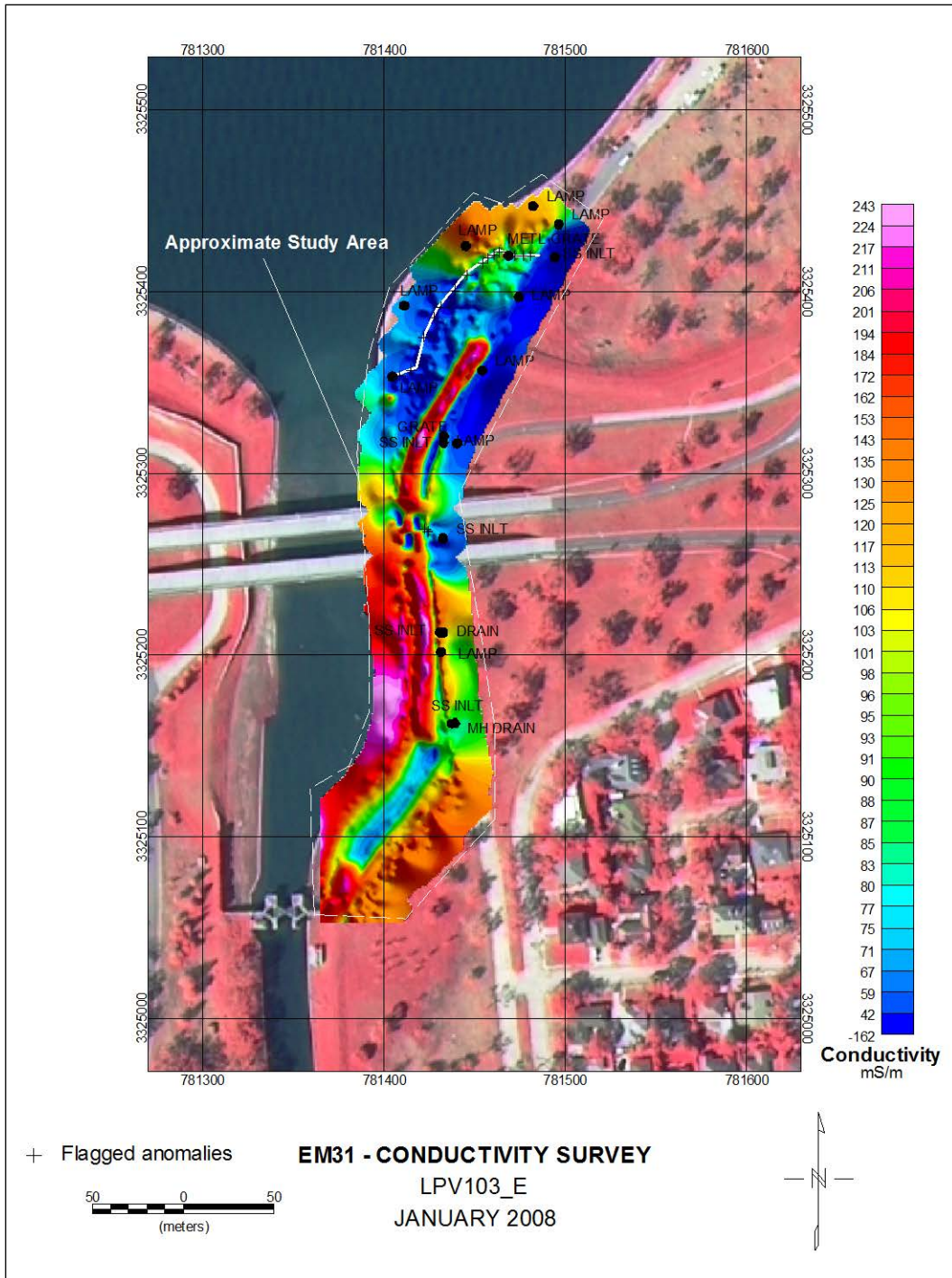


Figure B28. LPV103_E EM31 in-phase map.

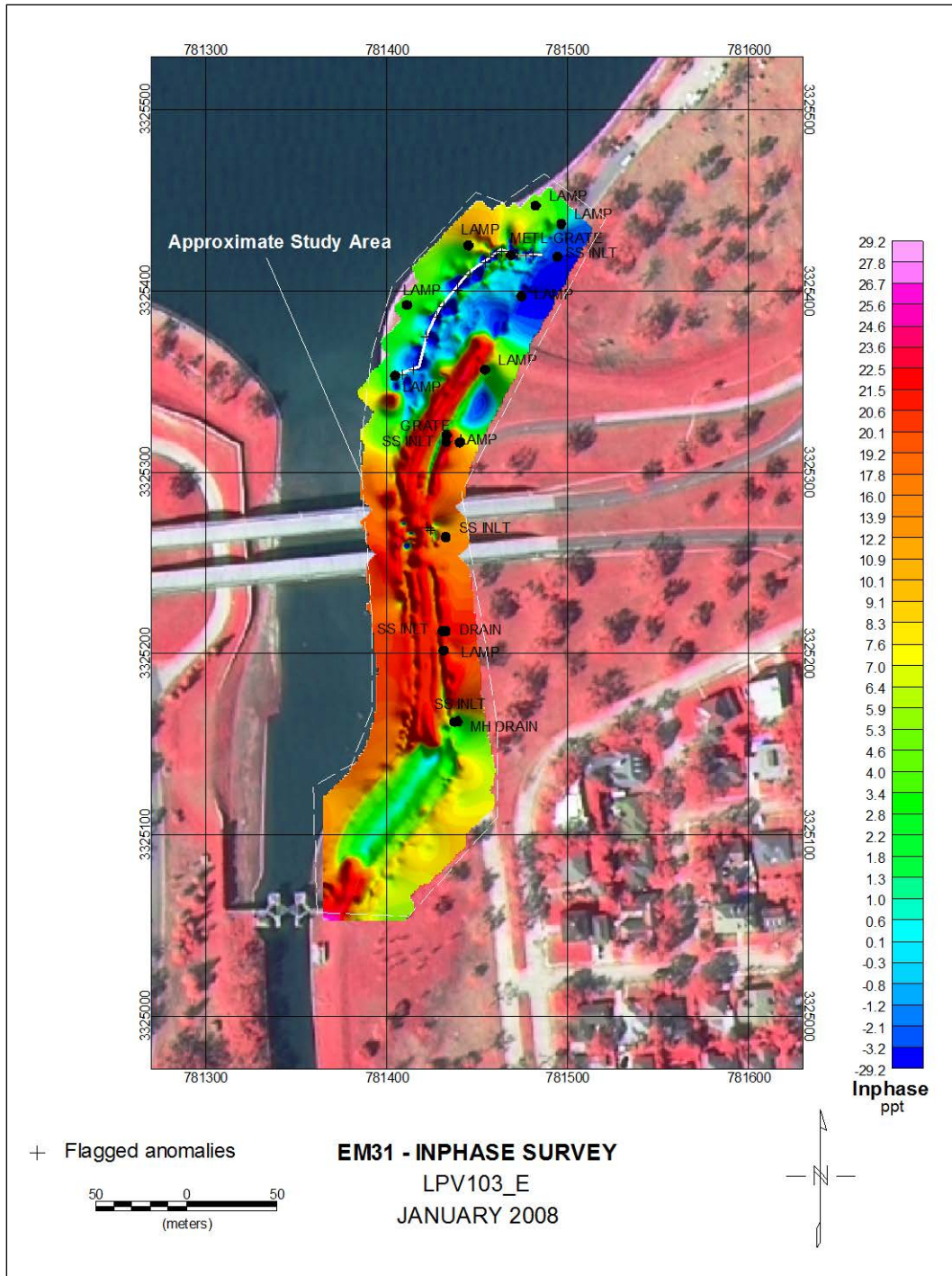


Figure B29. LPV103_F EM31 conductivity map.

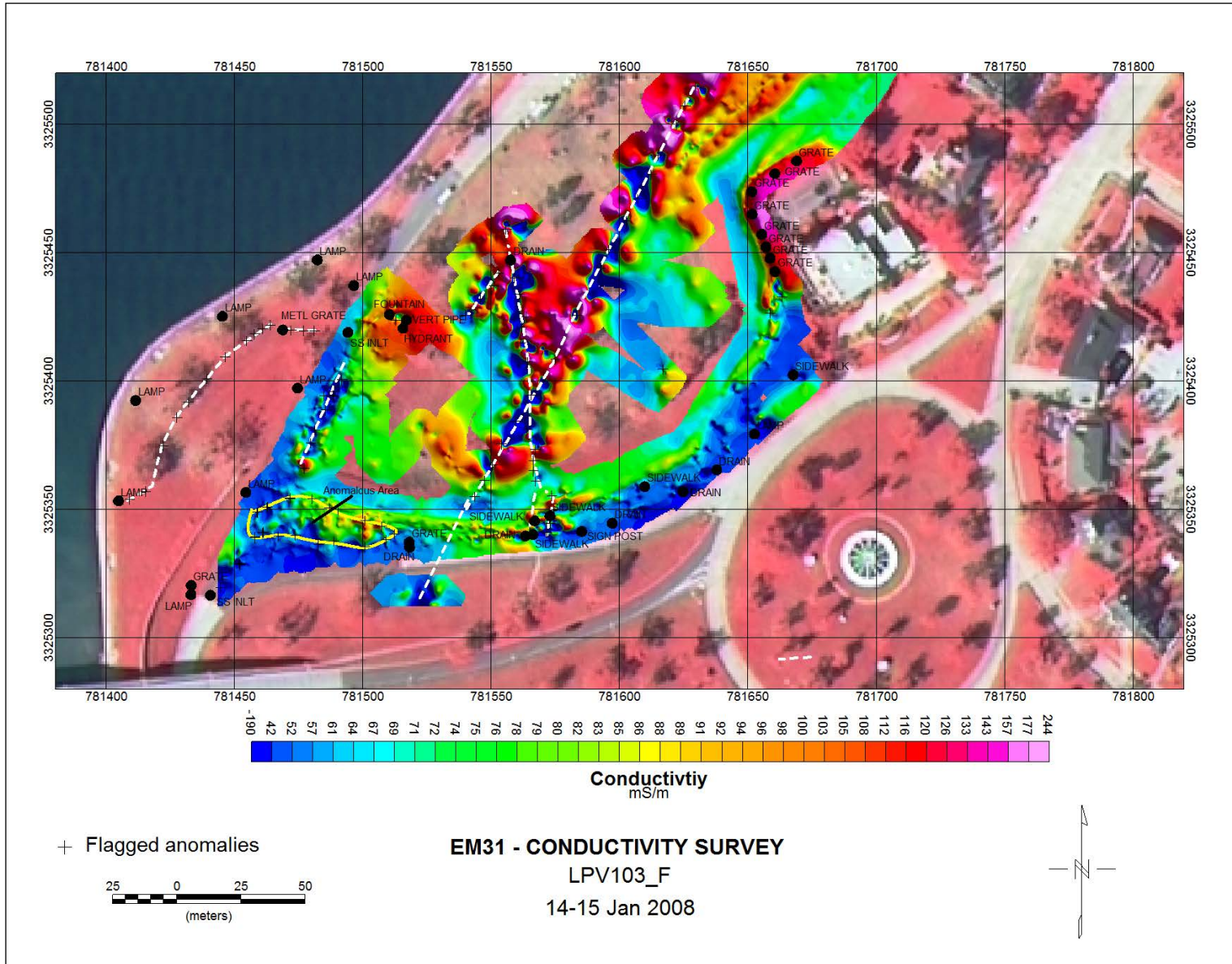


Figure B30. LPV103_F EM31 in-phase map.

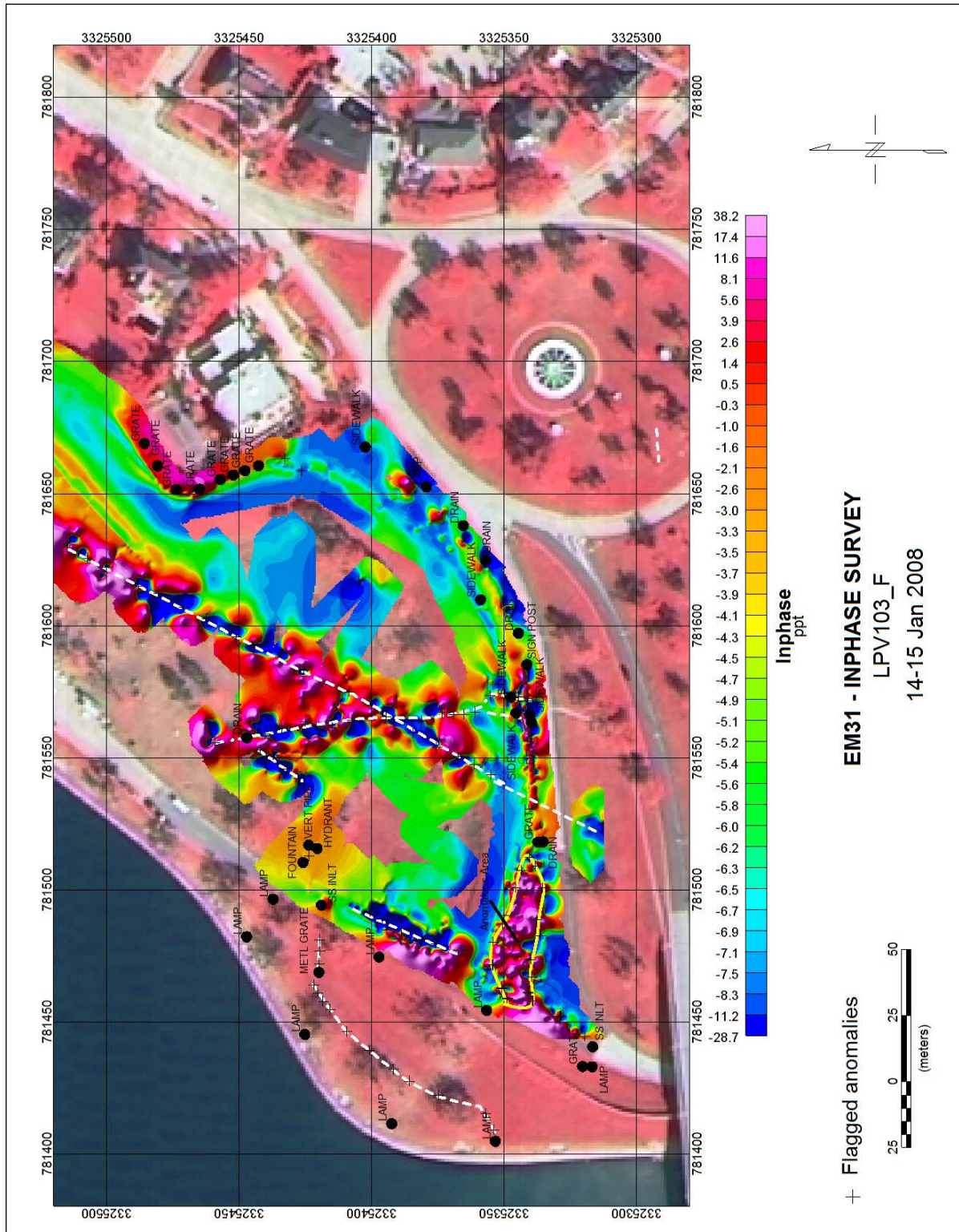


Figure 31. LPV103_G EM31 conductivity map.

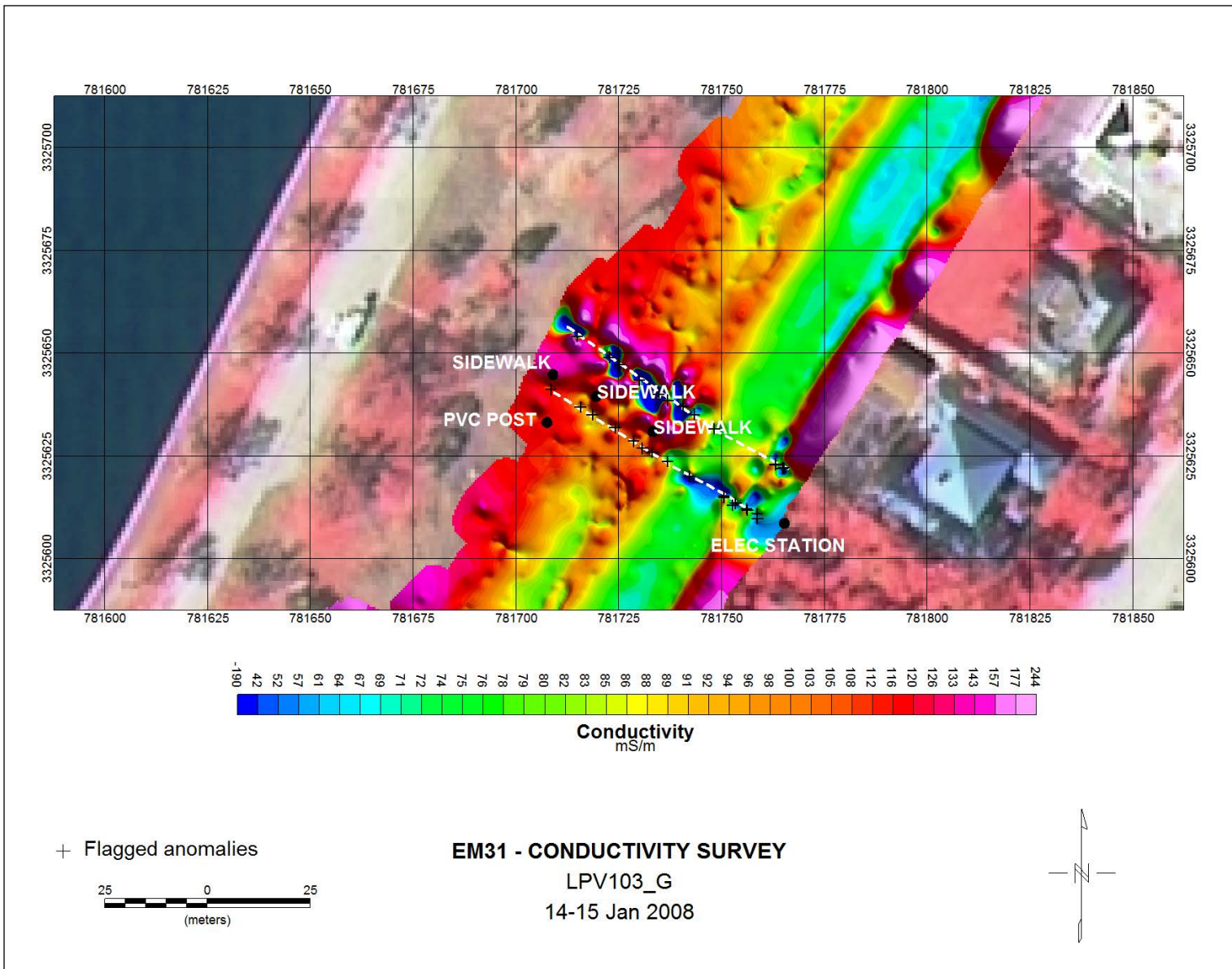


Figure B32. LPV103_G EM31 in-phase map.

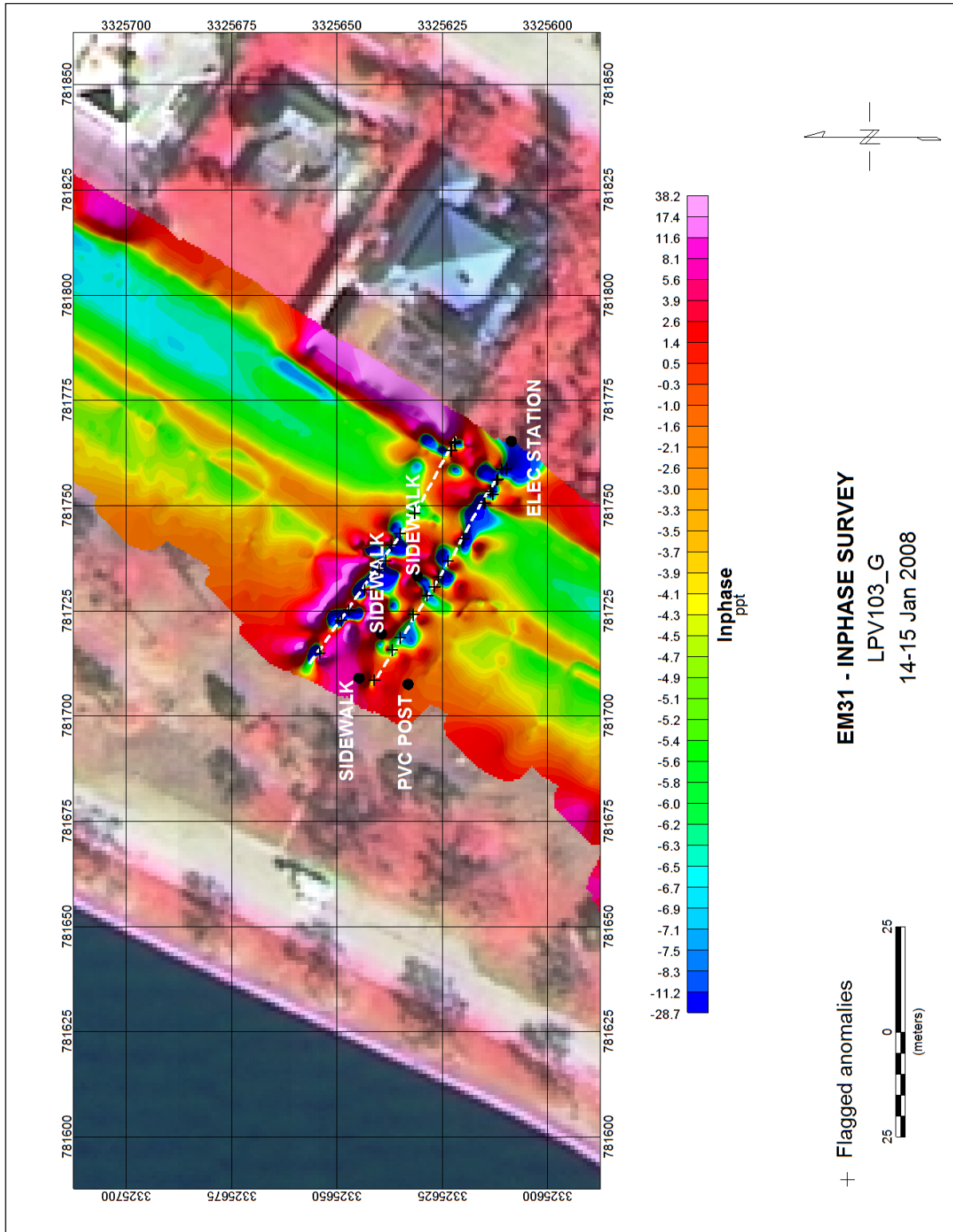


Figure B33. LPV103_H EM31 conductivity map.

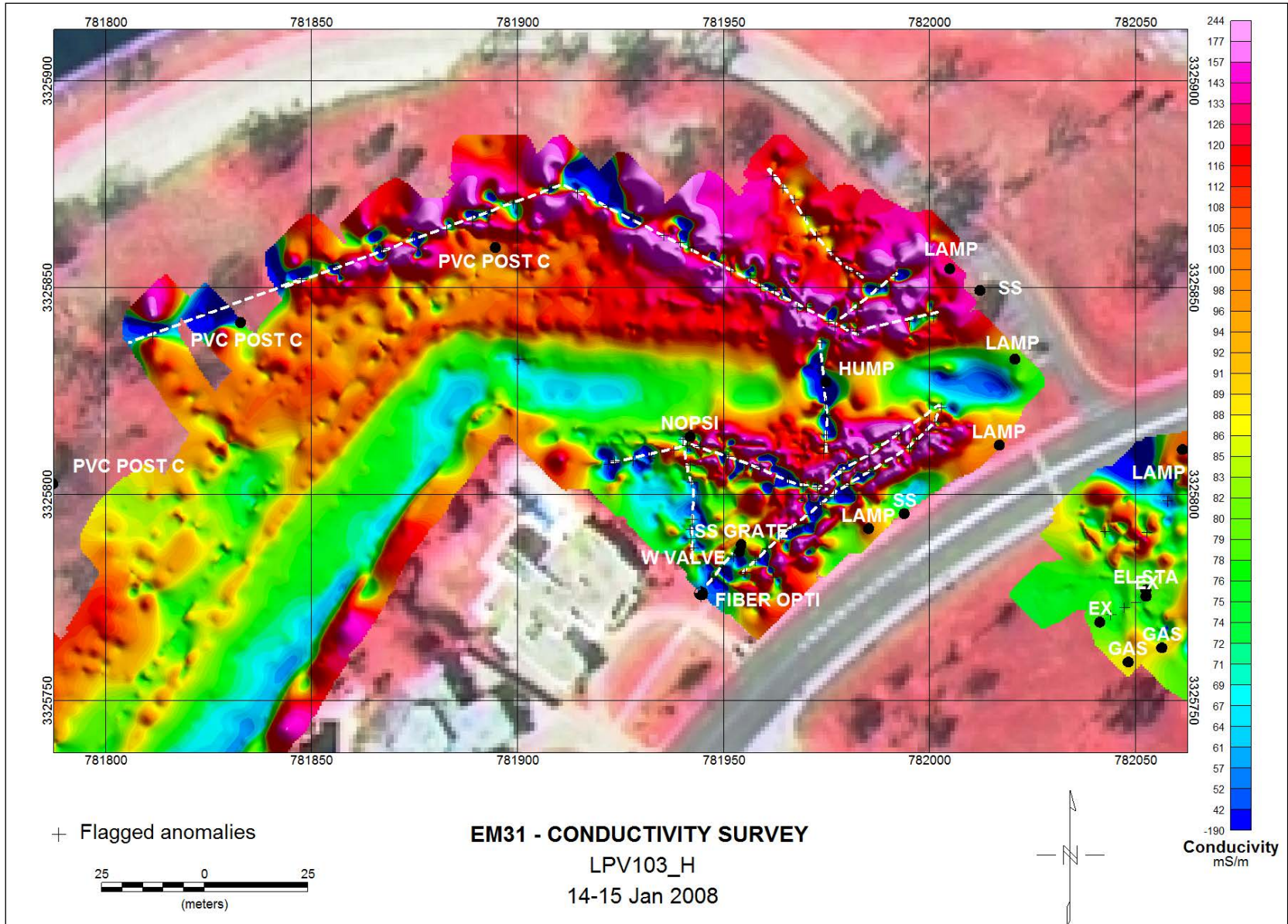


Figure B34. LPV103_H EM31 in-phase map.

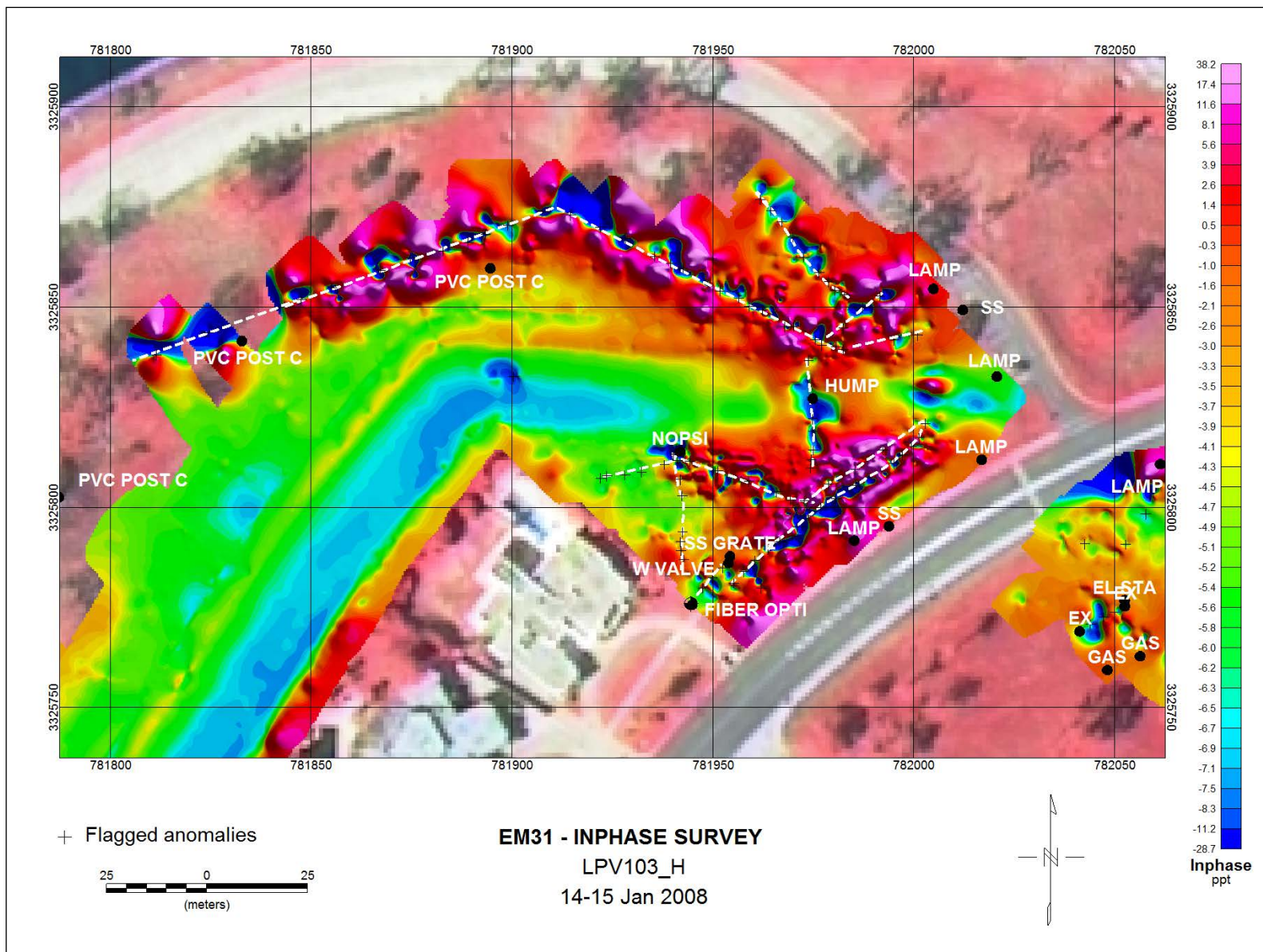


Figure B35. LPV103_JEM31 conductivity map.

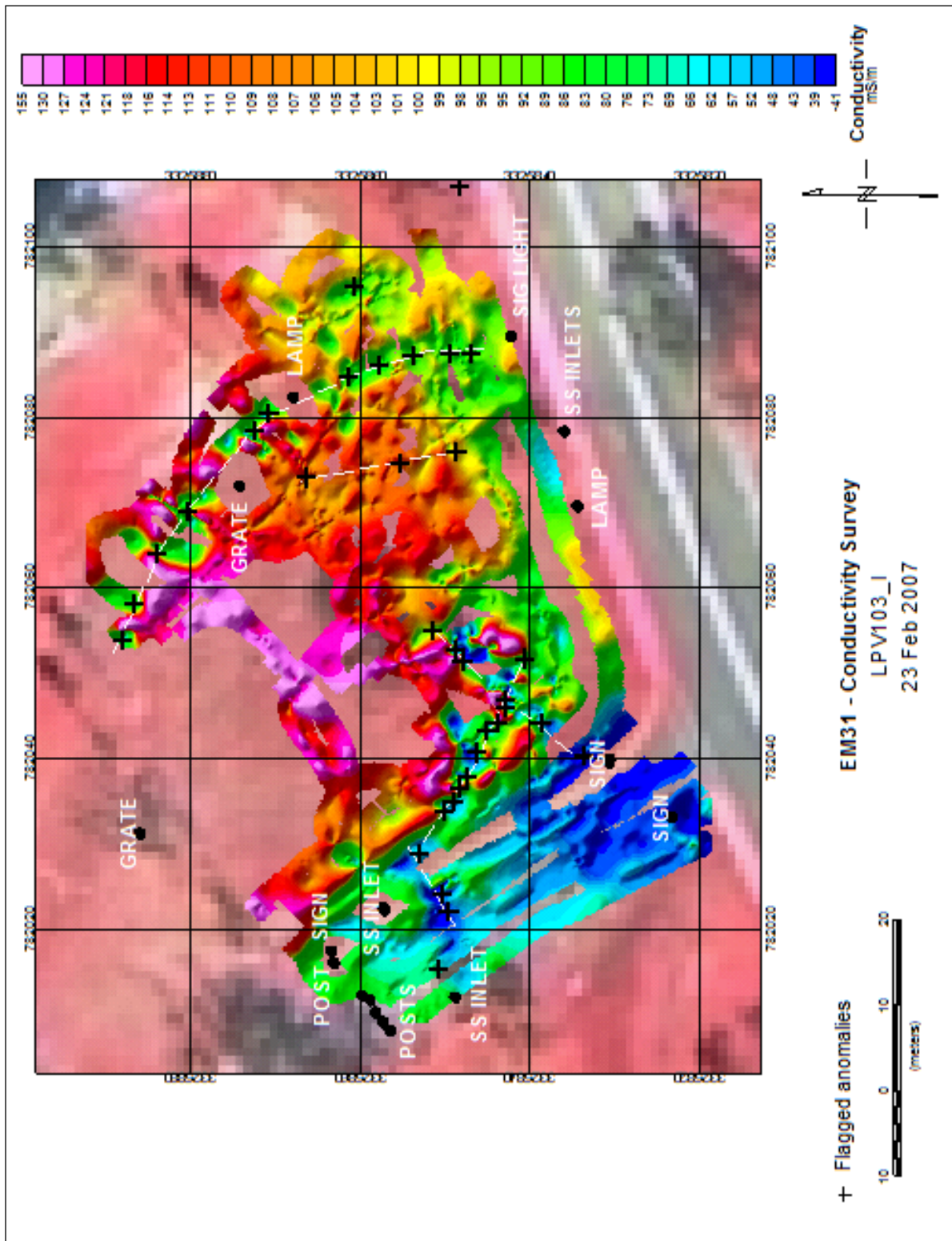


Figure B36. LPV103_J EM31 in-phase map.

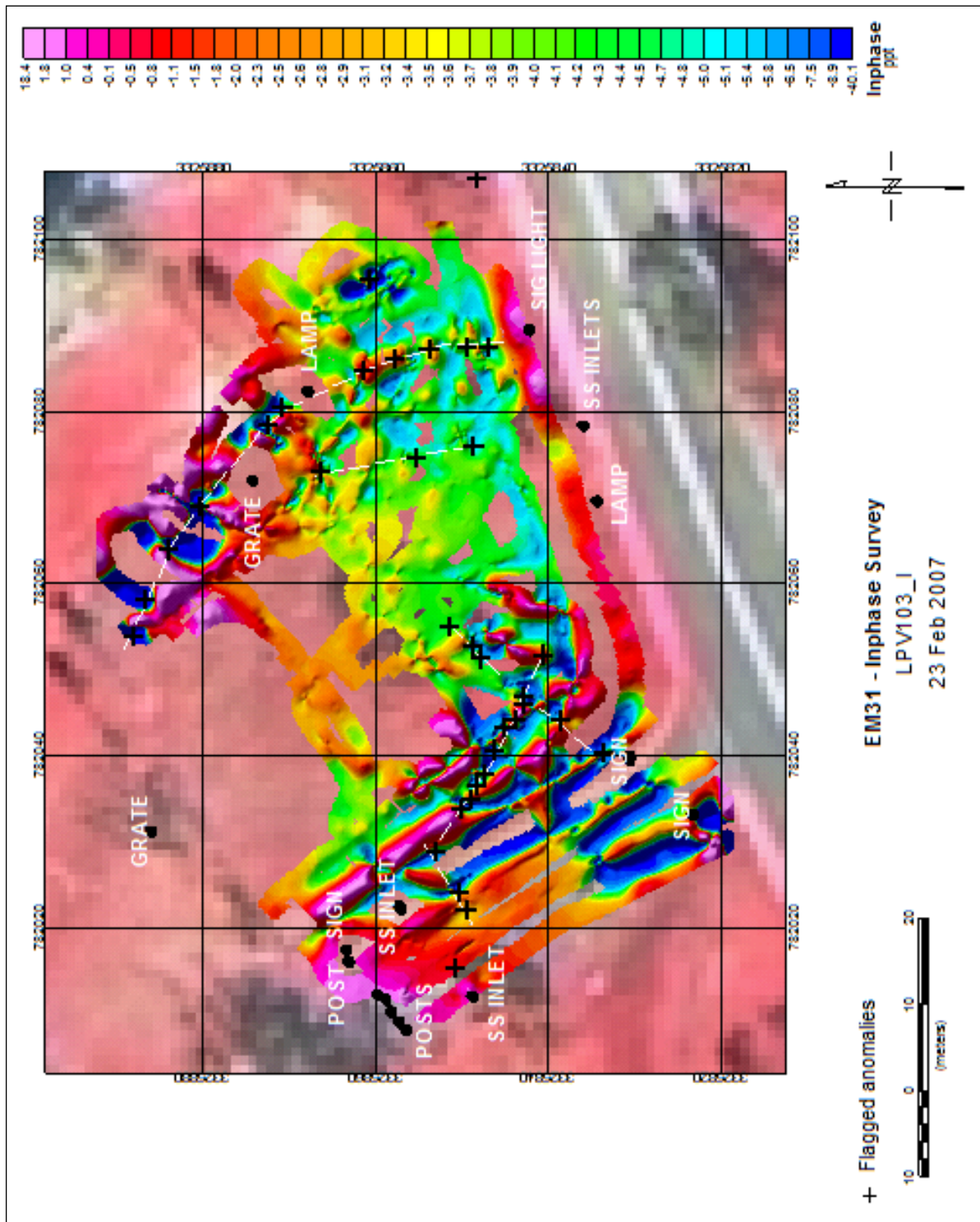


Figure B37. LPV103_J EM31 conductivity map.

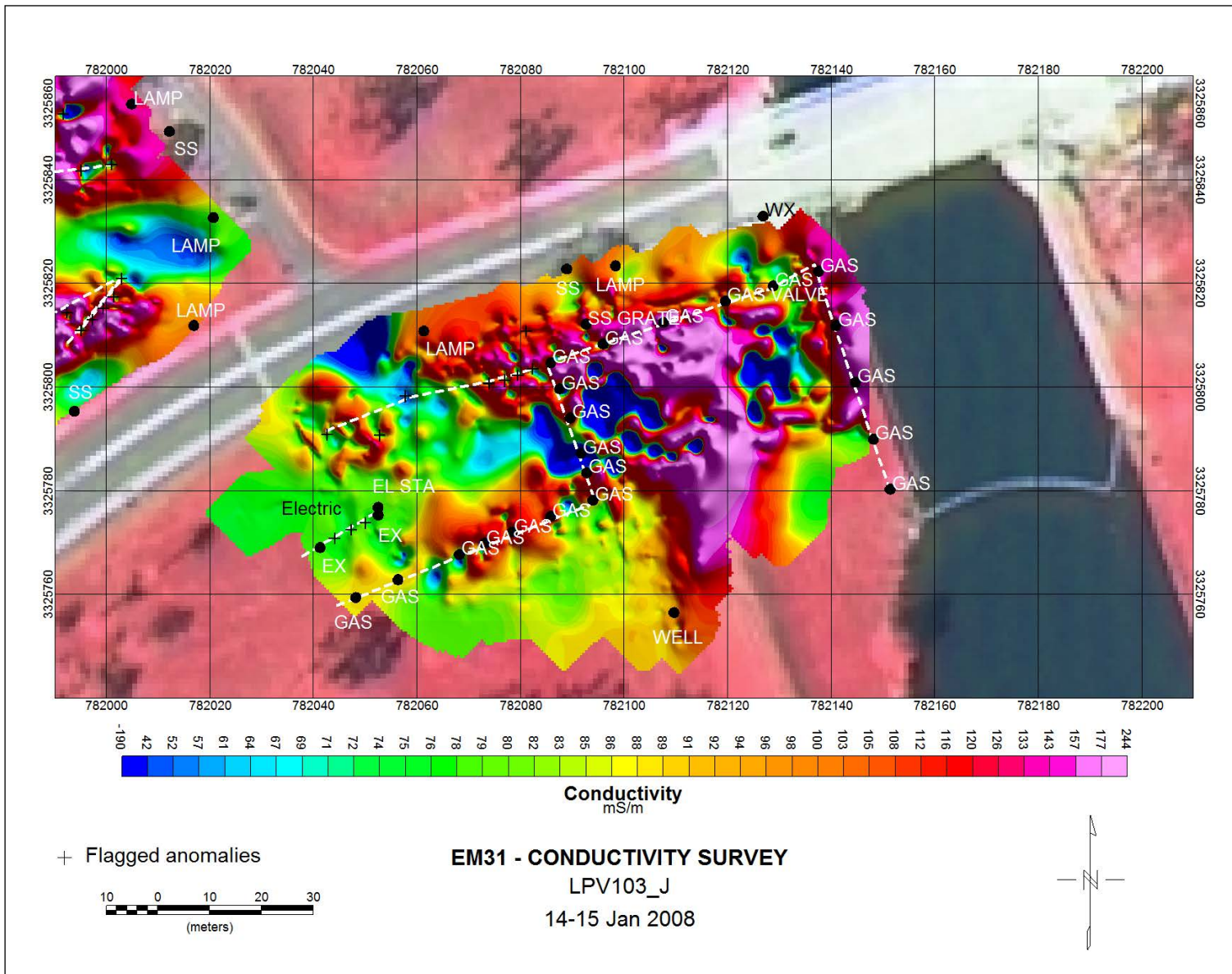


Figure B38. LPV103_J_EM31 in-phase map.

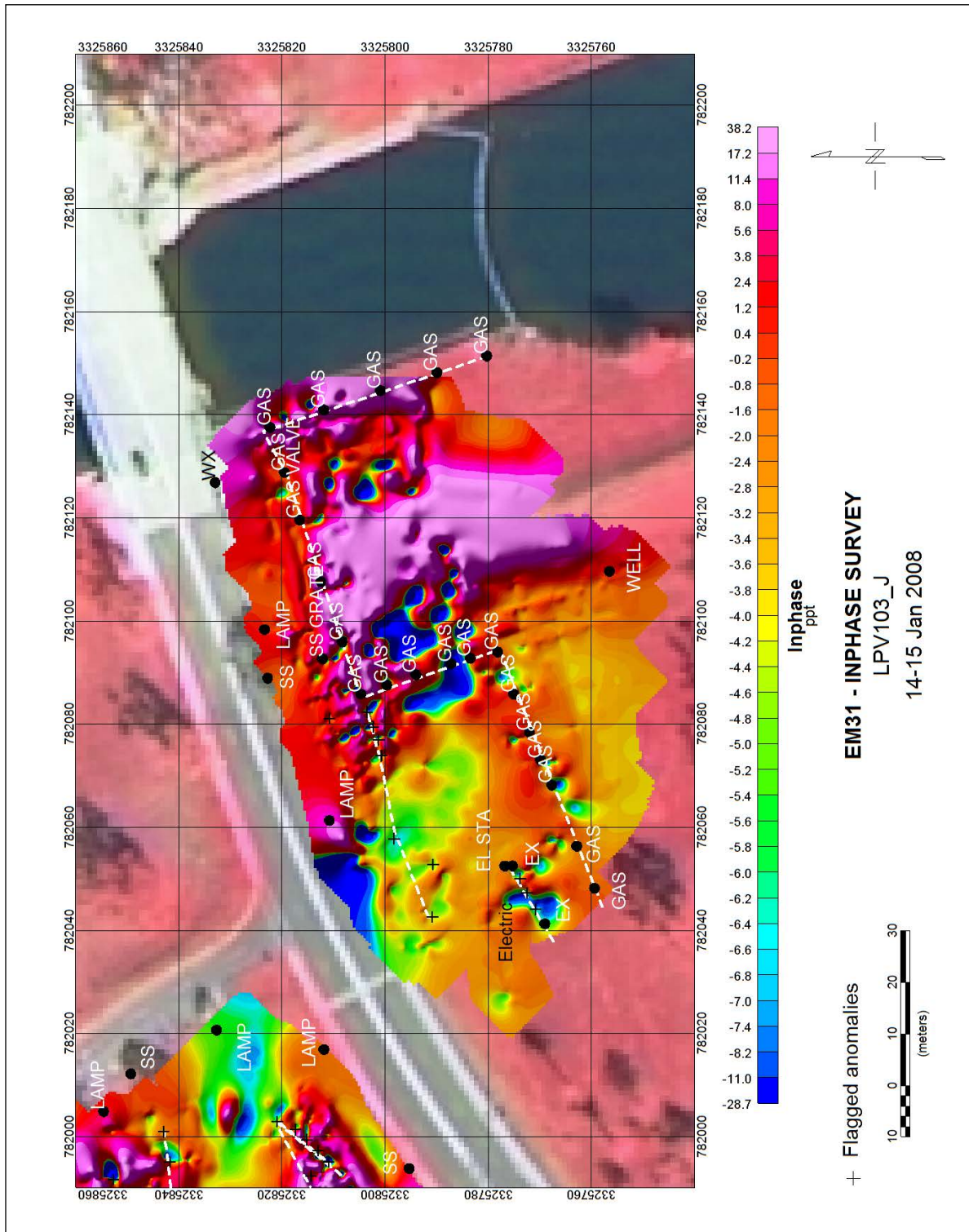


Figure B39. LPV103_K and LPV104_A EM31 conductivity map.

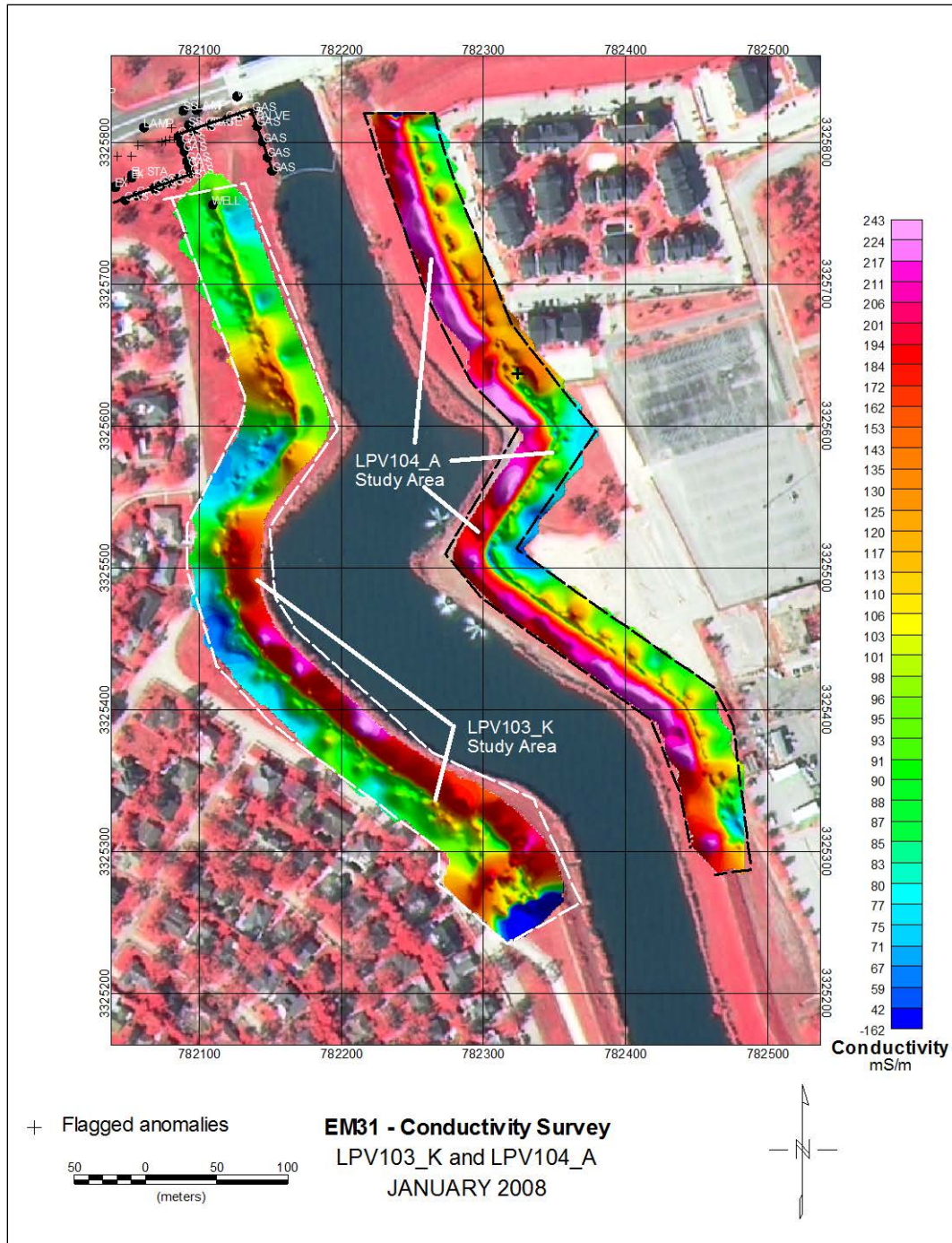


Figure B 40. LPV103_K and LPV104_A EM31 in-phase map.

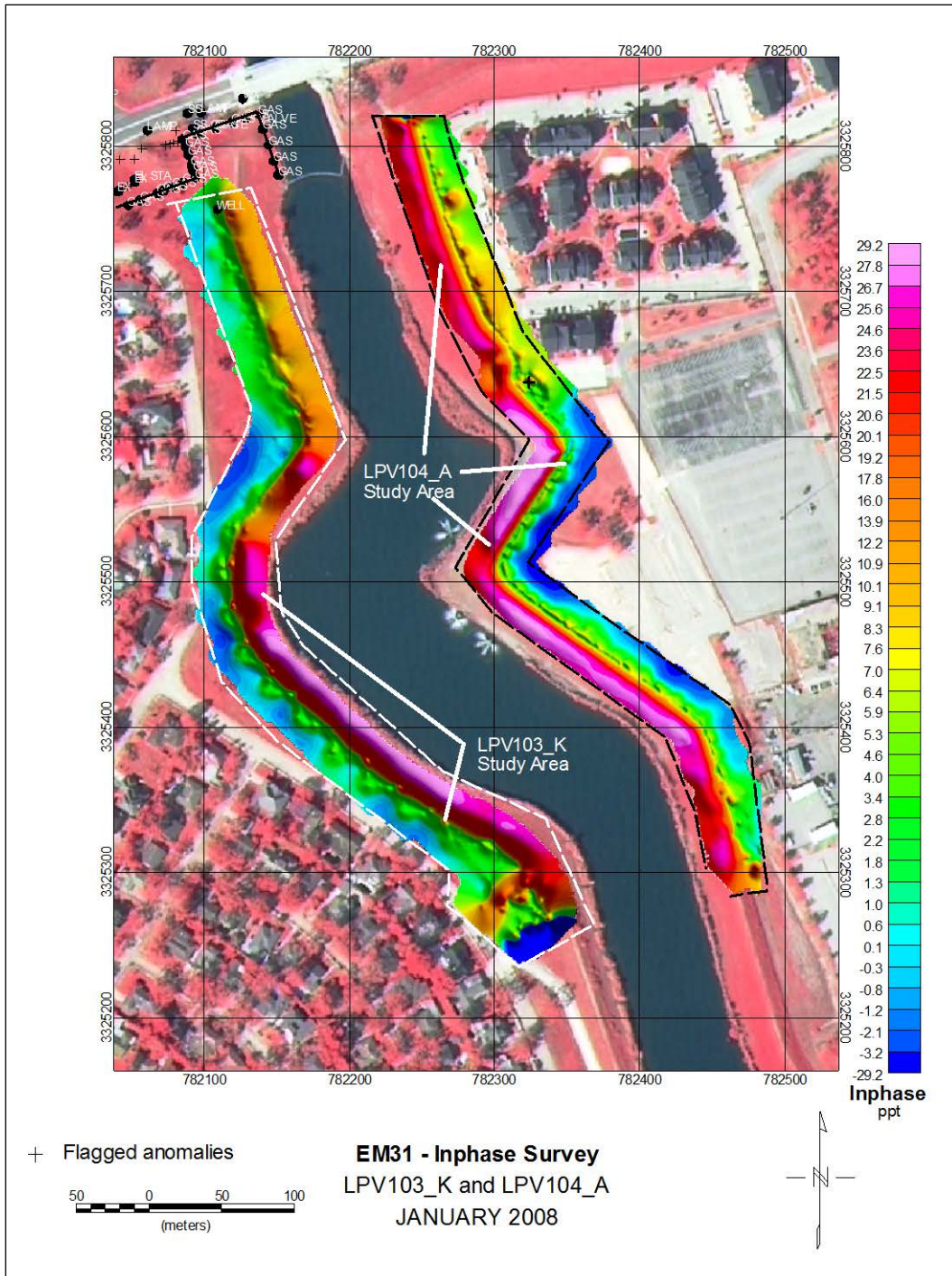


Figure B41. LPV104_B EM31 conductivity map.

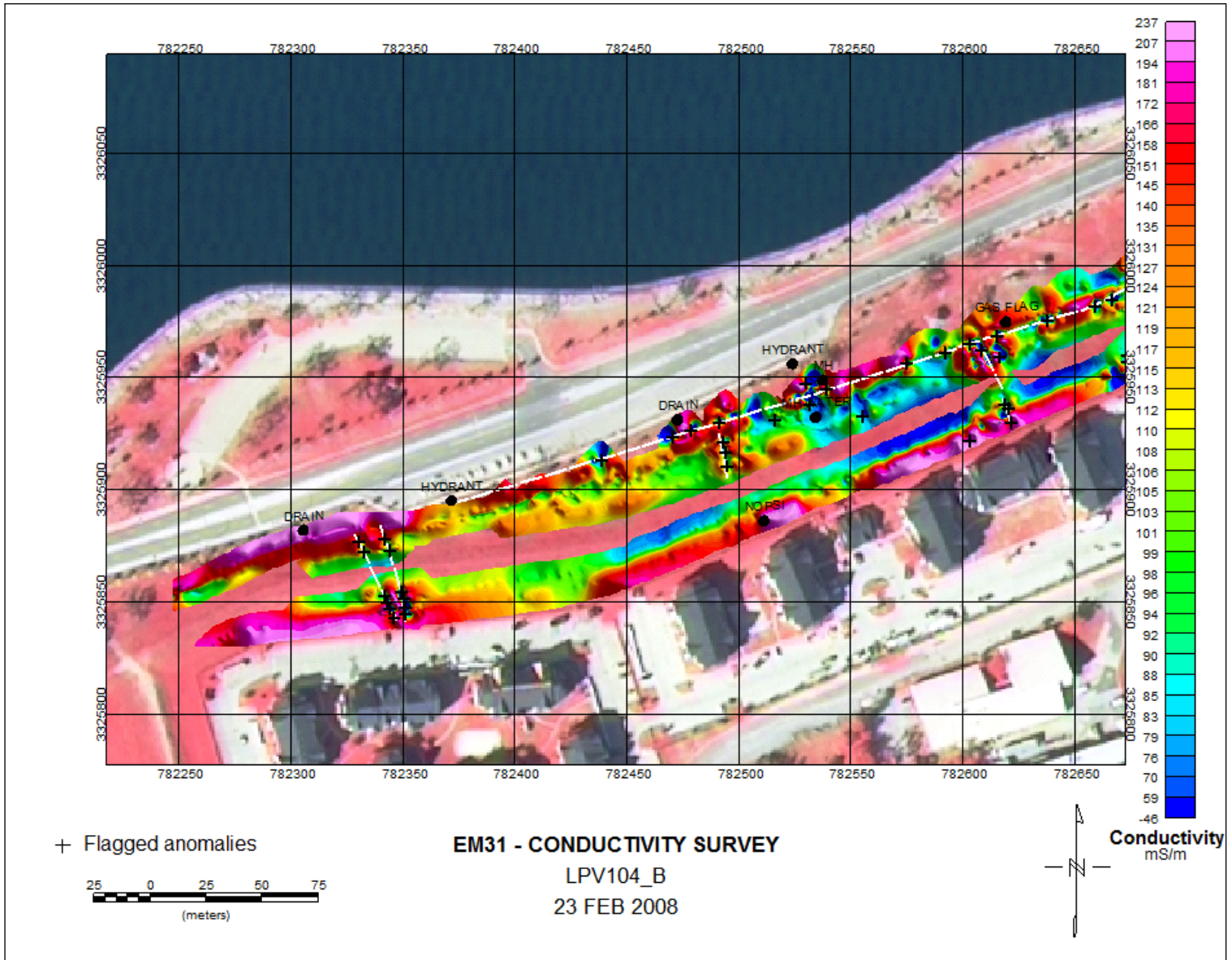


Figure B42. LPV104_B EM31 in-phase map.

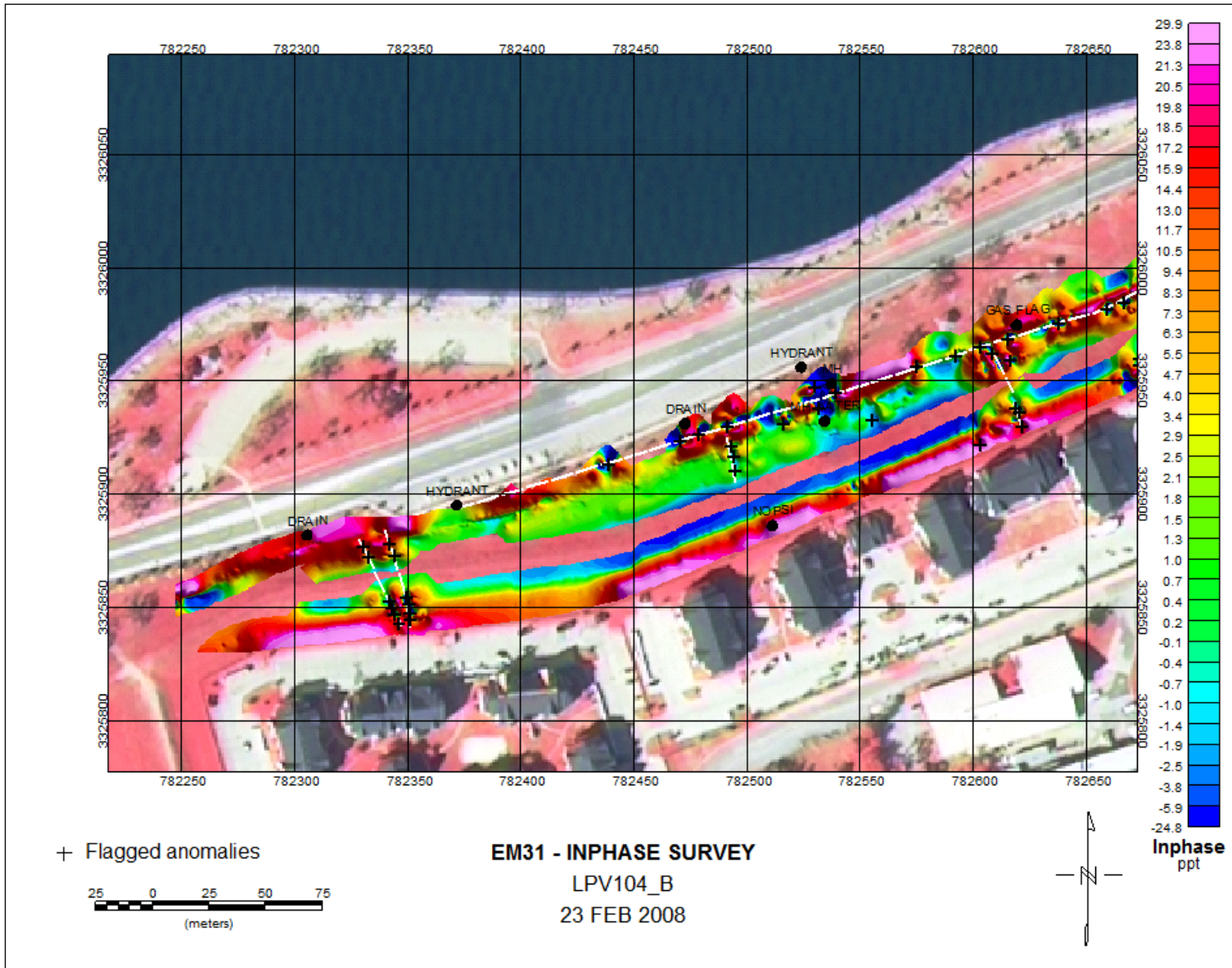


Figure B43. LPV104_C EM31 conductivity map.

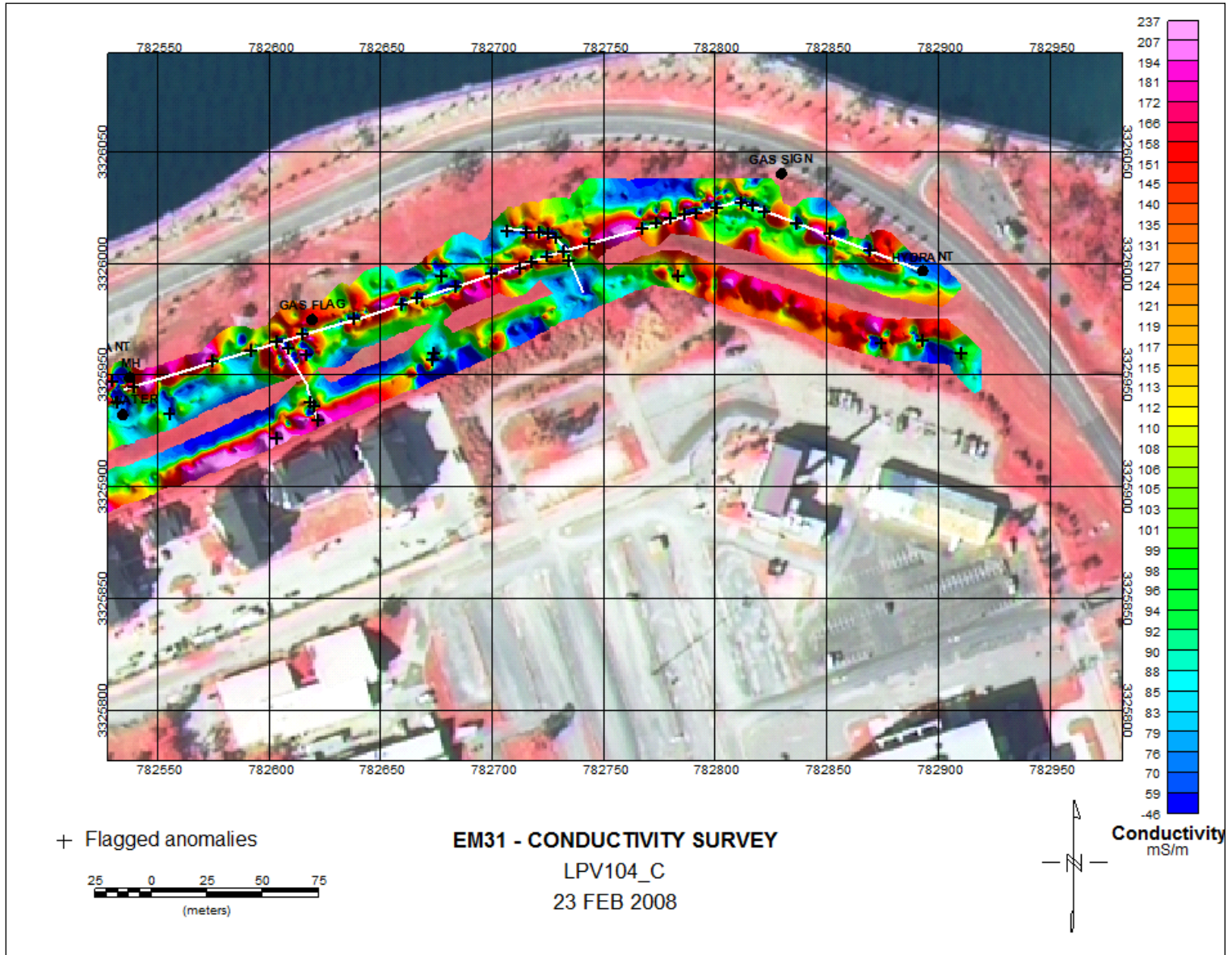


Figure B44. LPV104_C EM31 in-phase map.

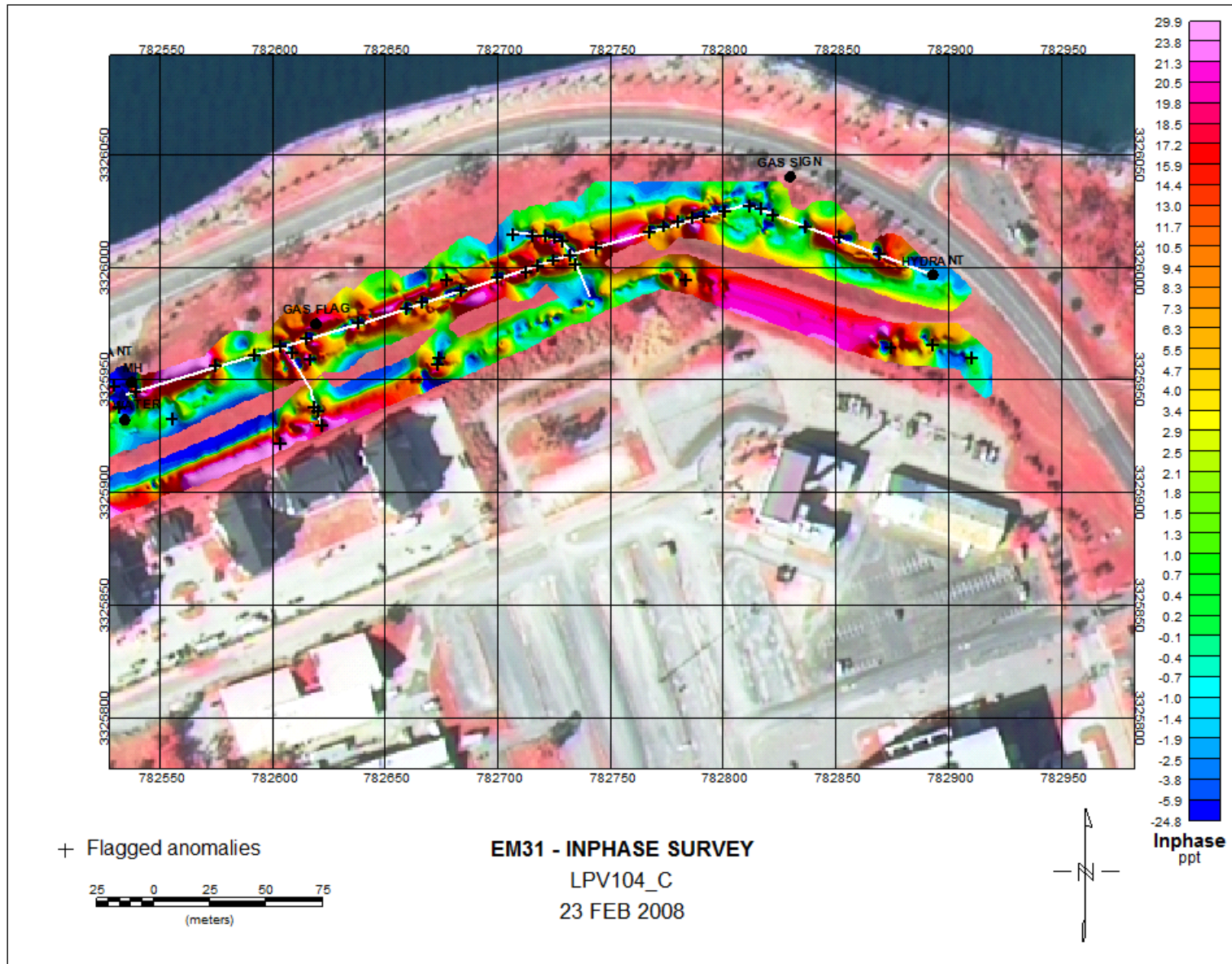


Figure B45. LPV104_D EM31 conductivity map.

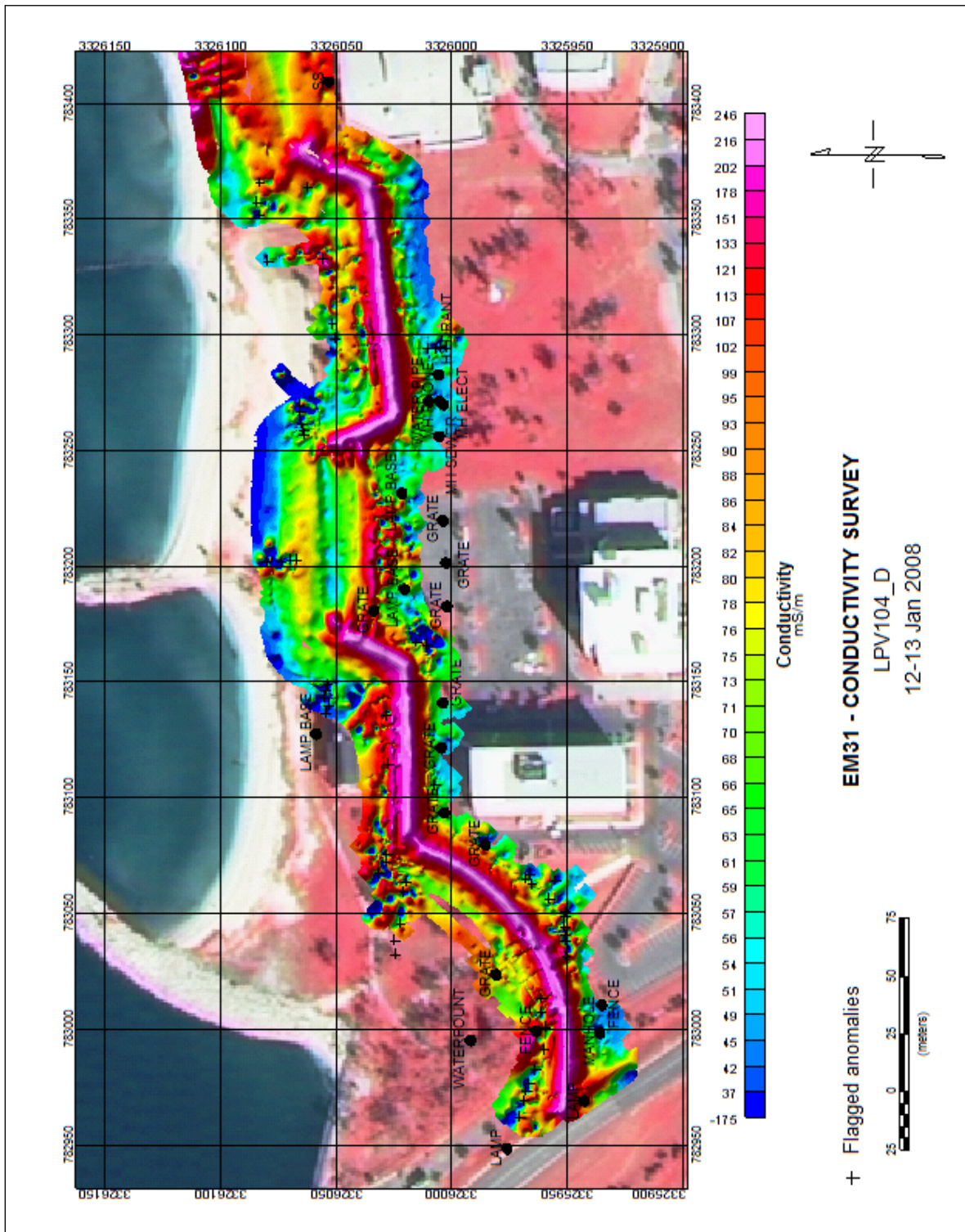


Figure B46. LPV104_D EM31 in-phase map.

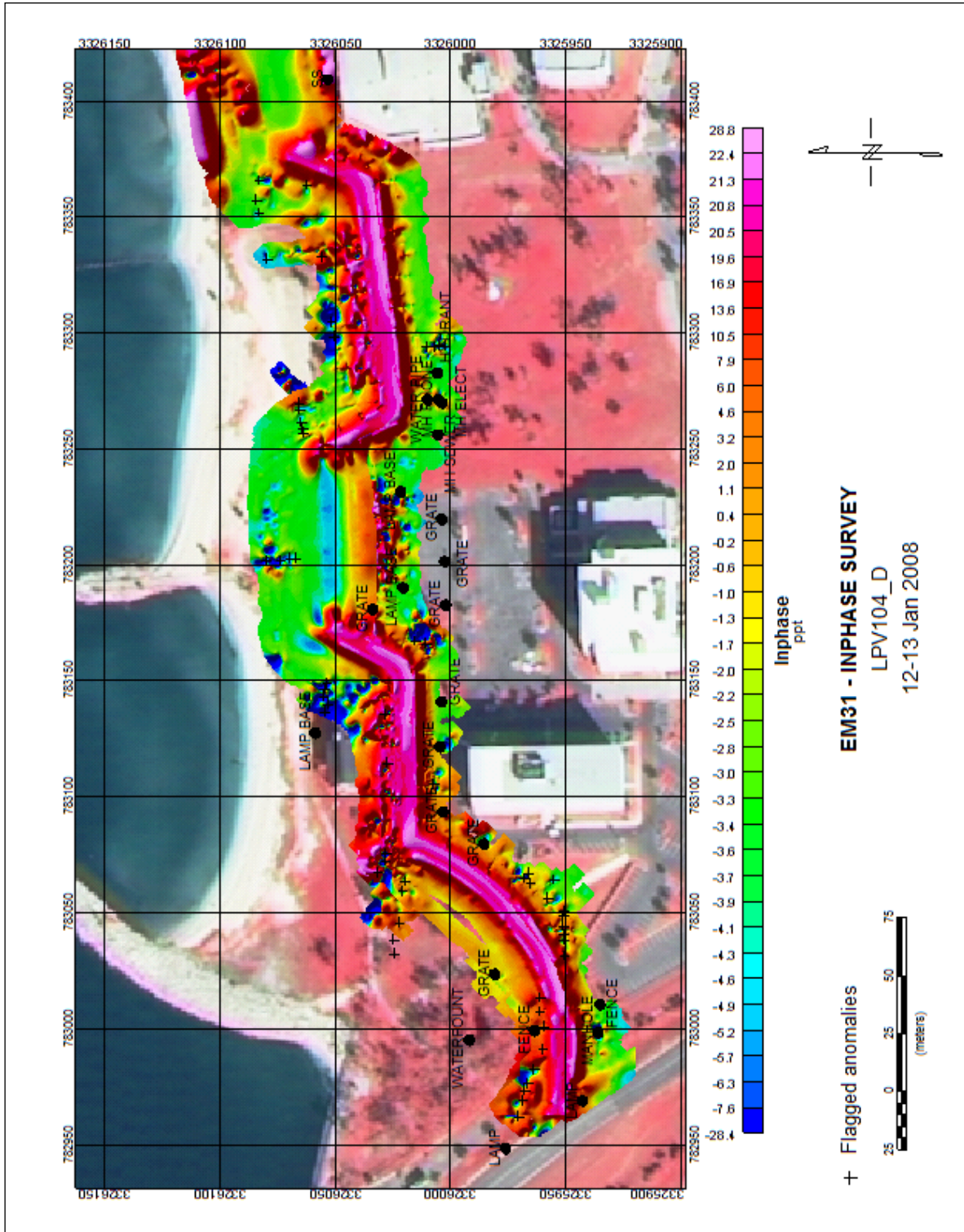


Figure B47. LPV104_E EM31 conductivity map.

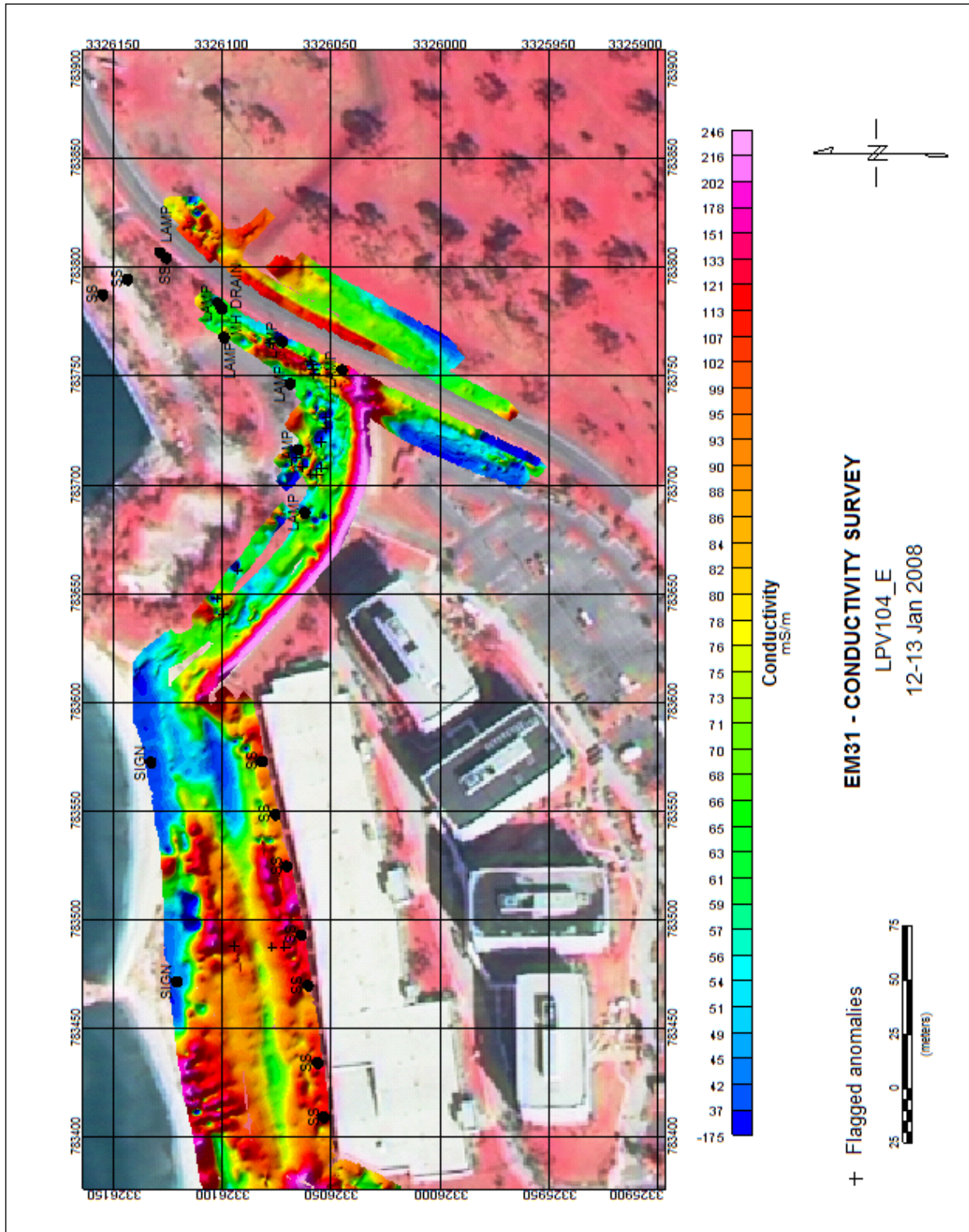


Figure B48. LPV104_E EM31 in-phase map.

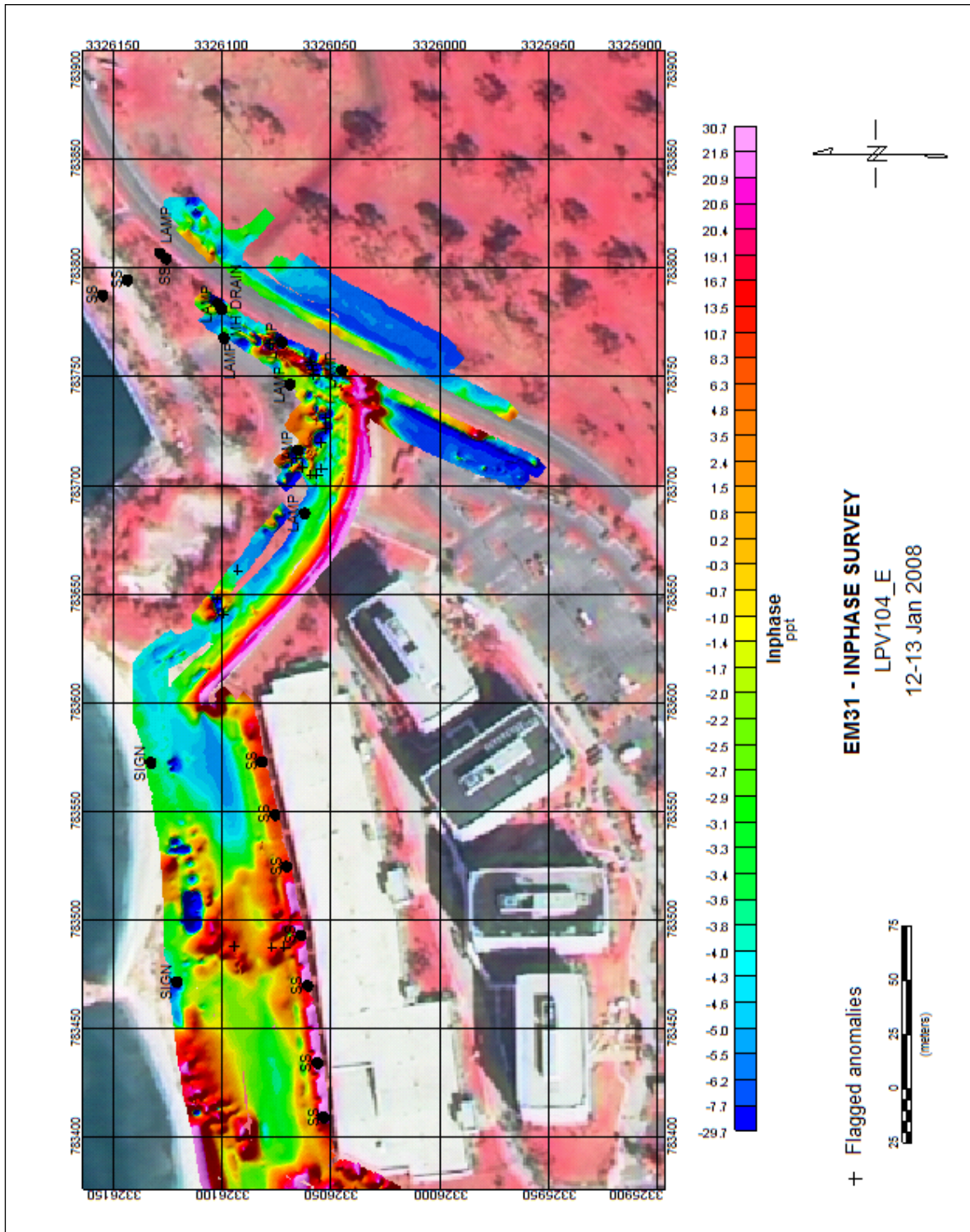


Figure B49. LPV104_F EM31 conductivity map.

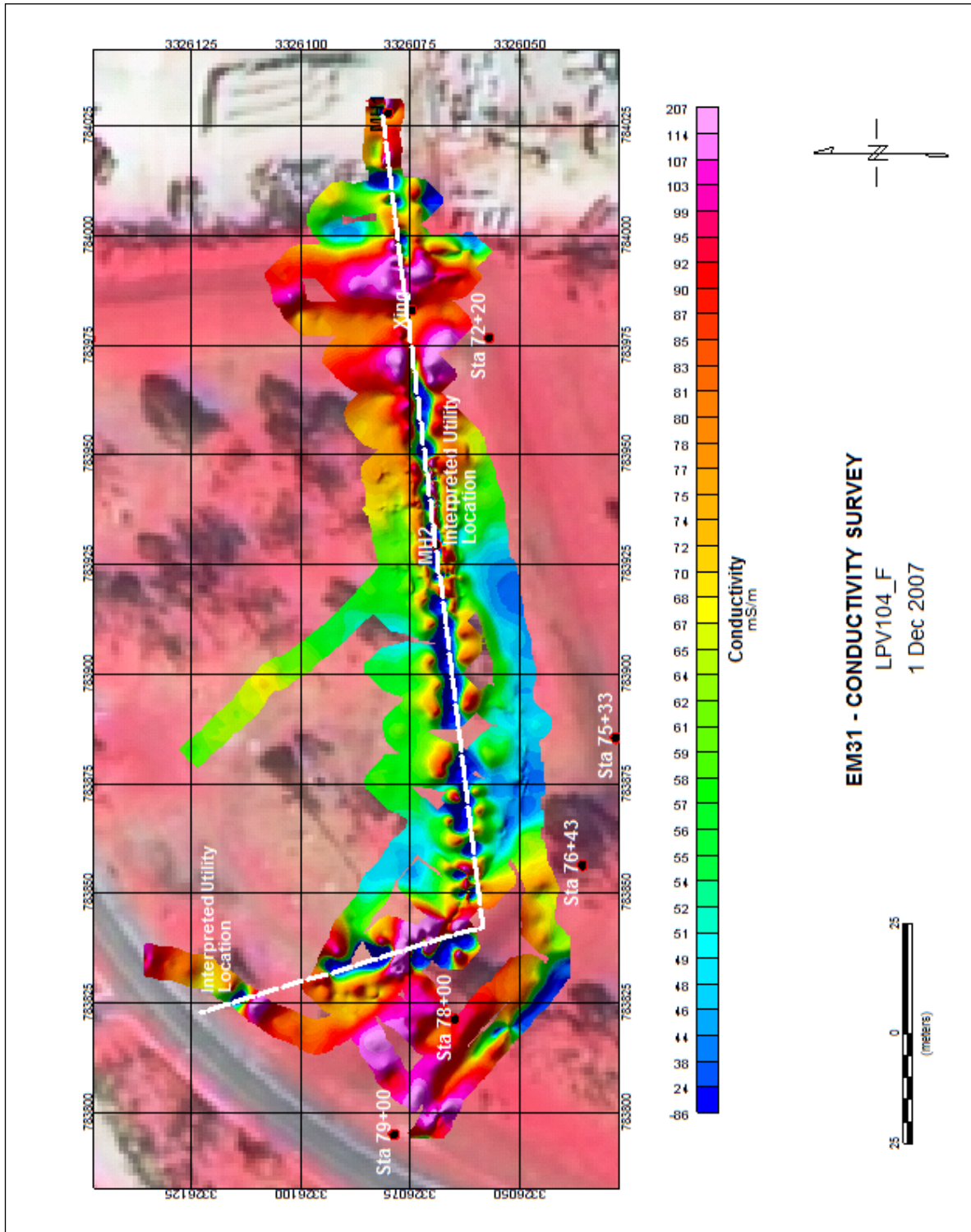


Figure B50. LPV104_F EM31 in-phase map.

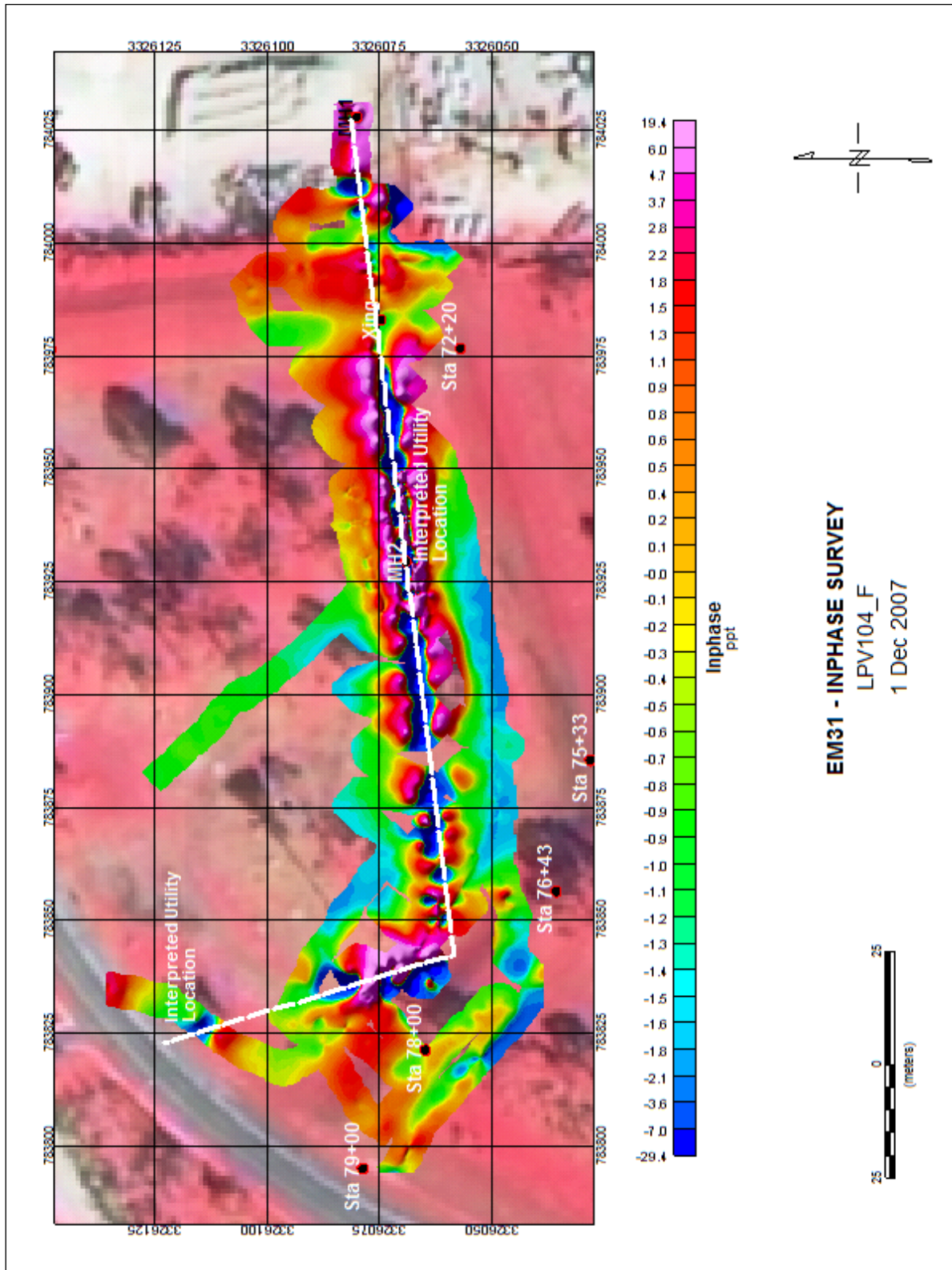


Figure B51. LPV104_G EM31 conductivity map.

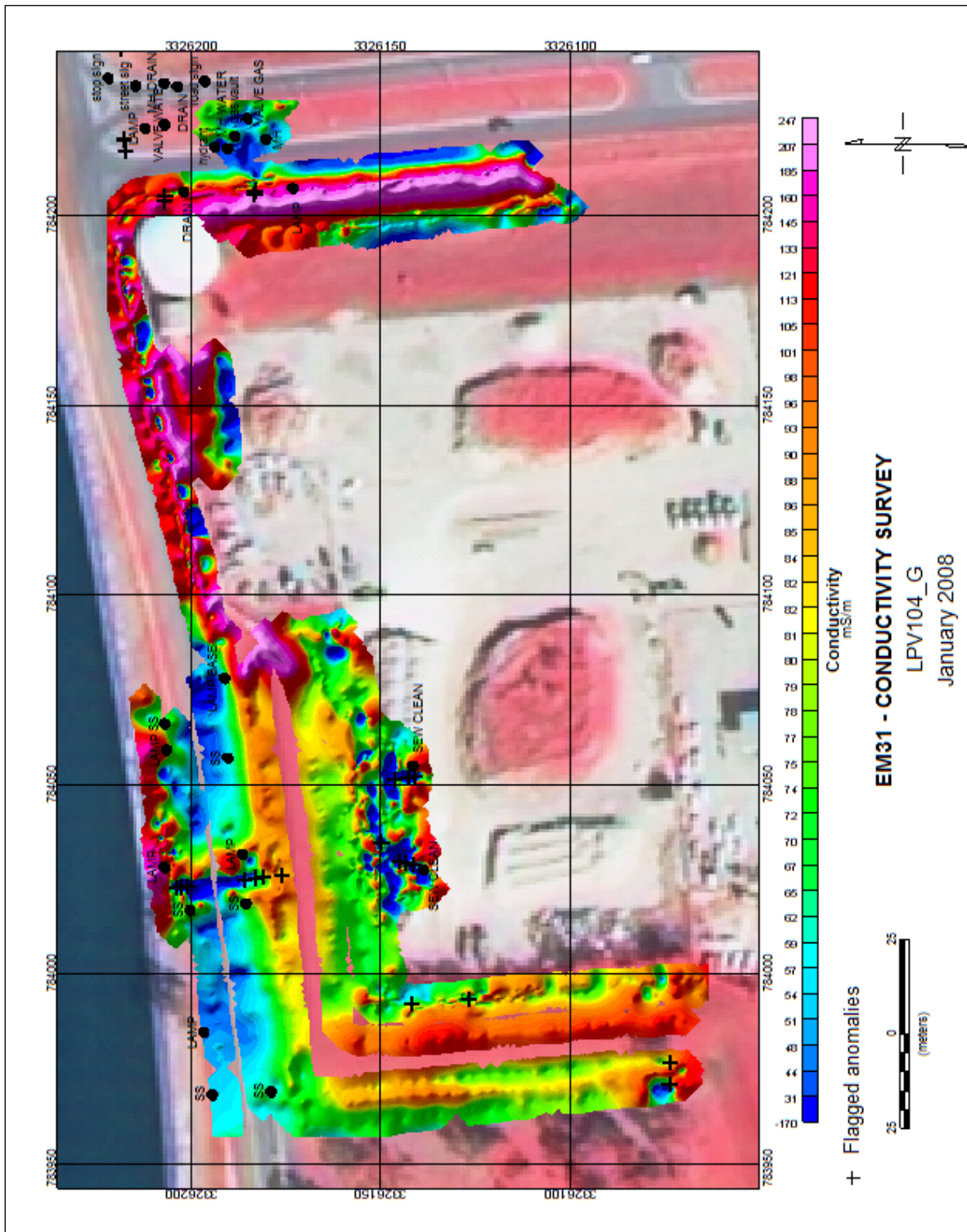


Figure B52. LPV104_G EM31 in-phase map.

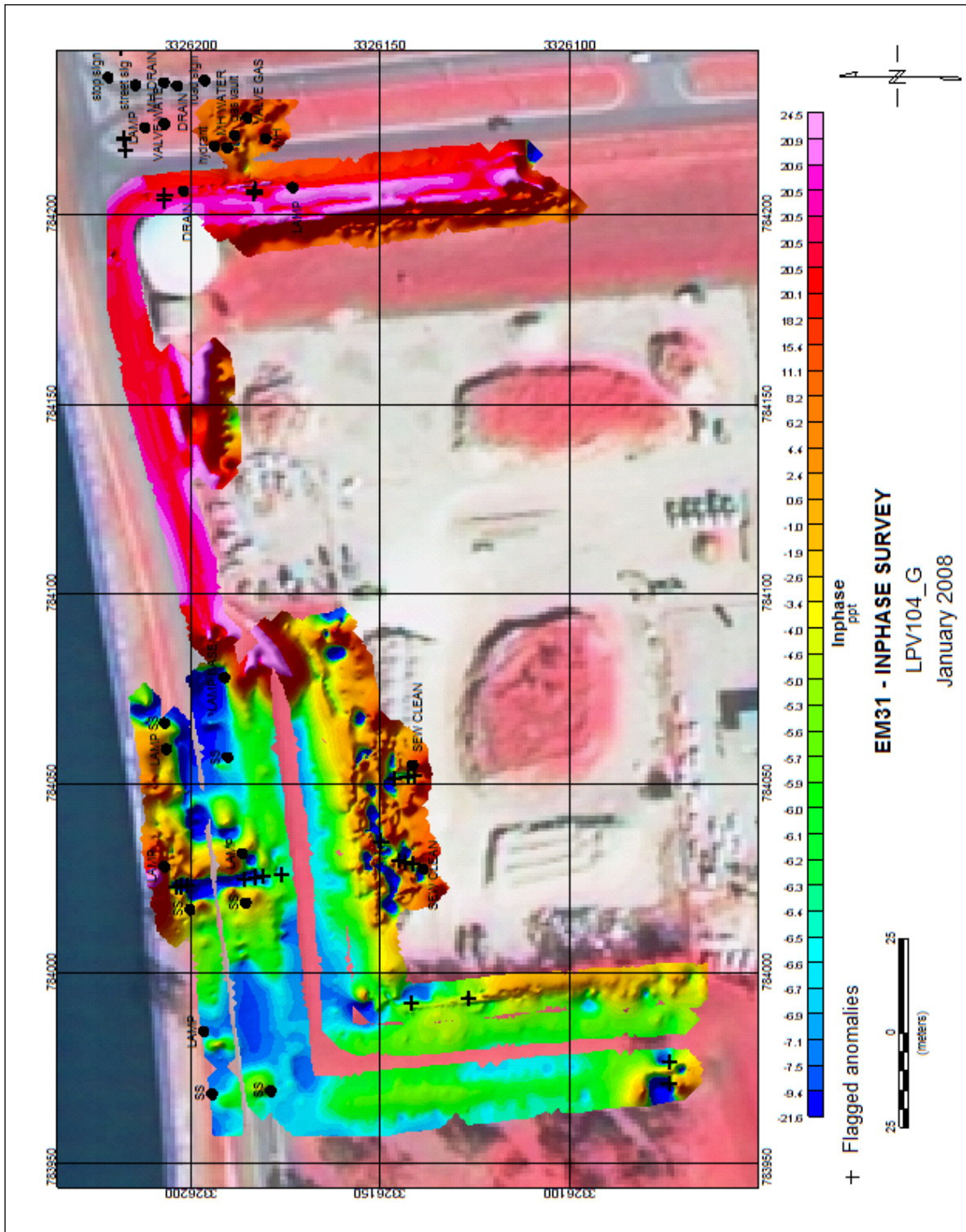


Figure B53. LPV104_H EM31 conductivity map.

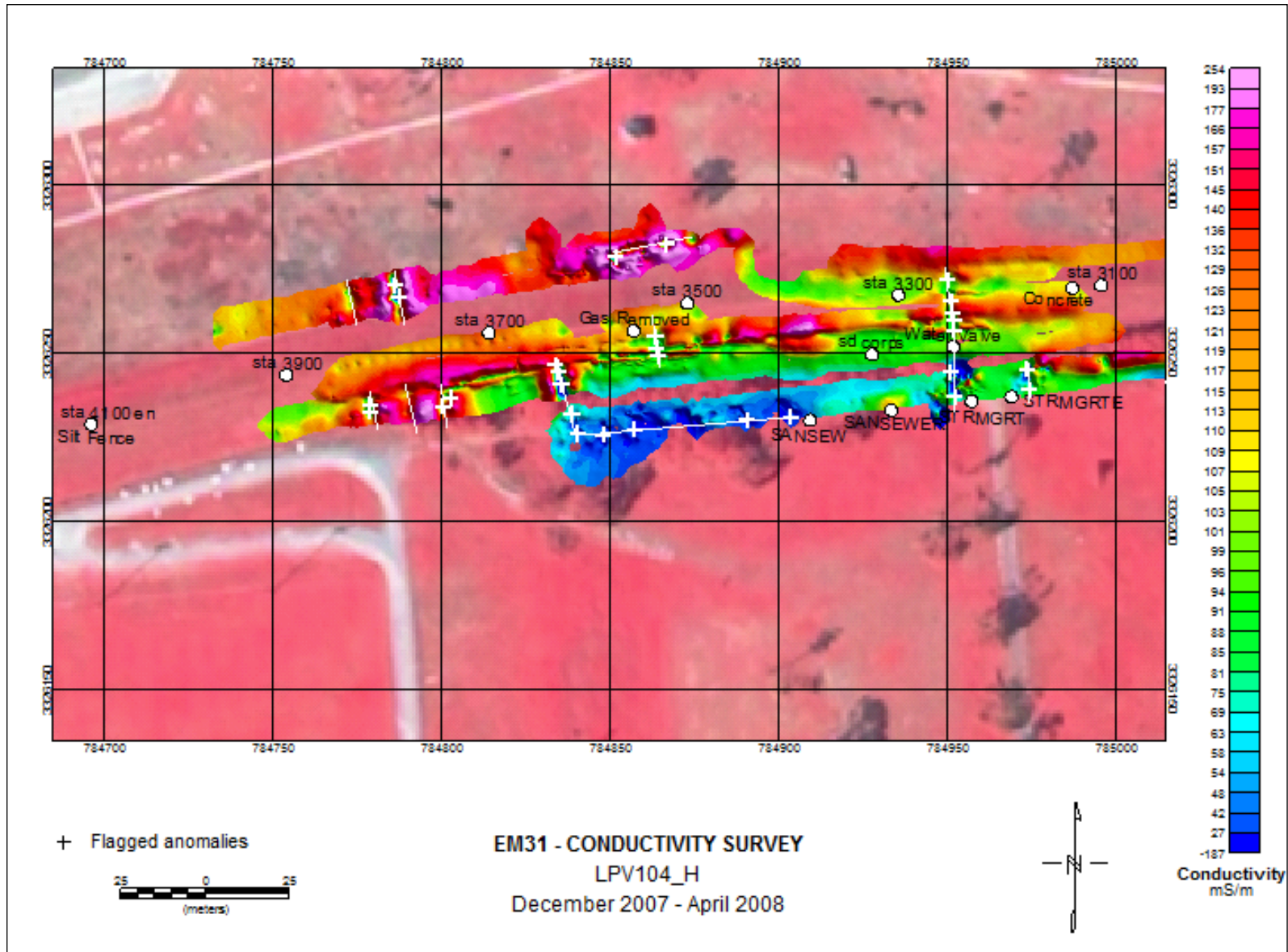


Figure B54. LPV104_H_EM31 in-phase map.

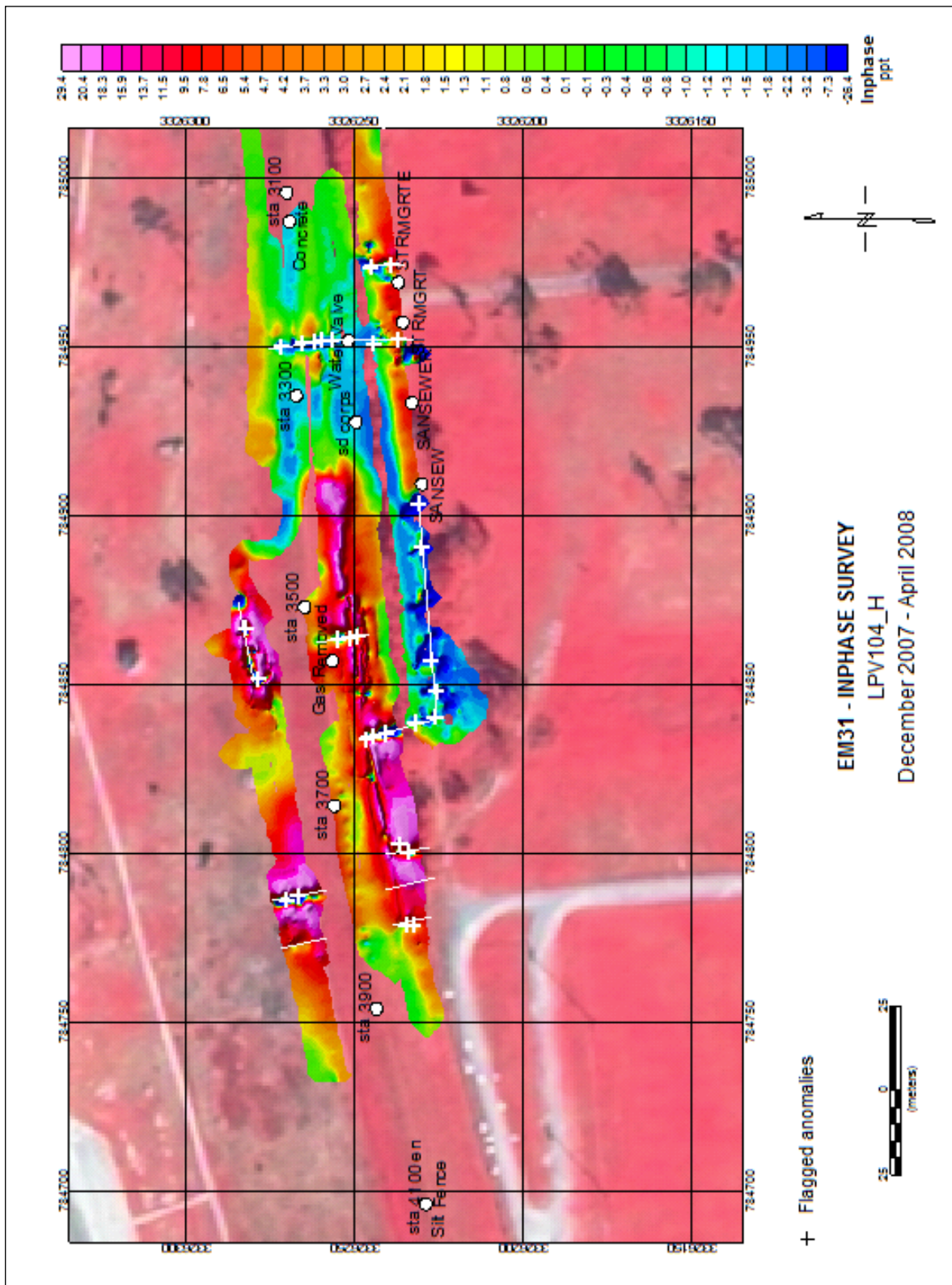
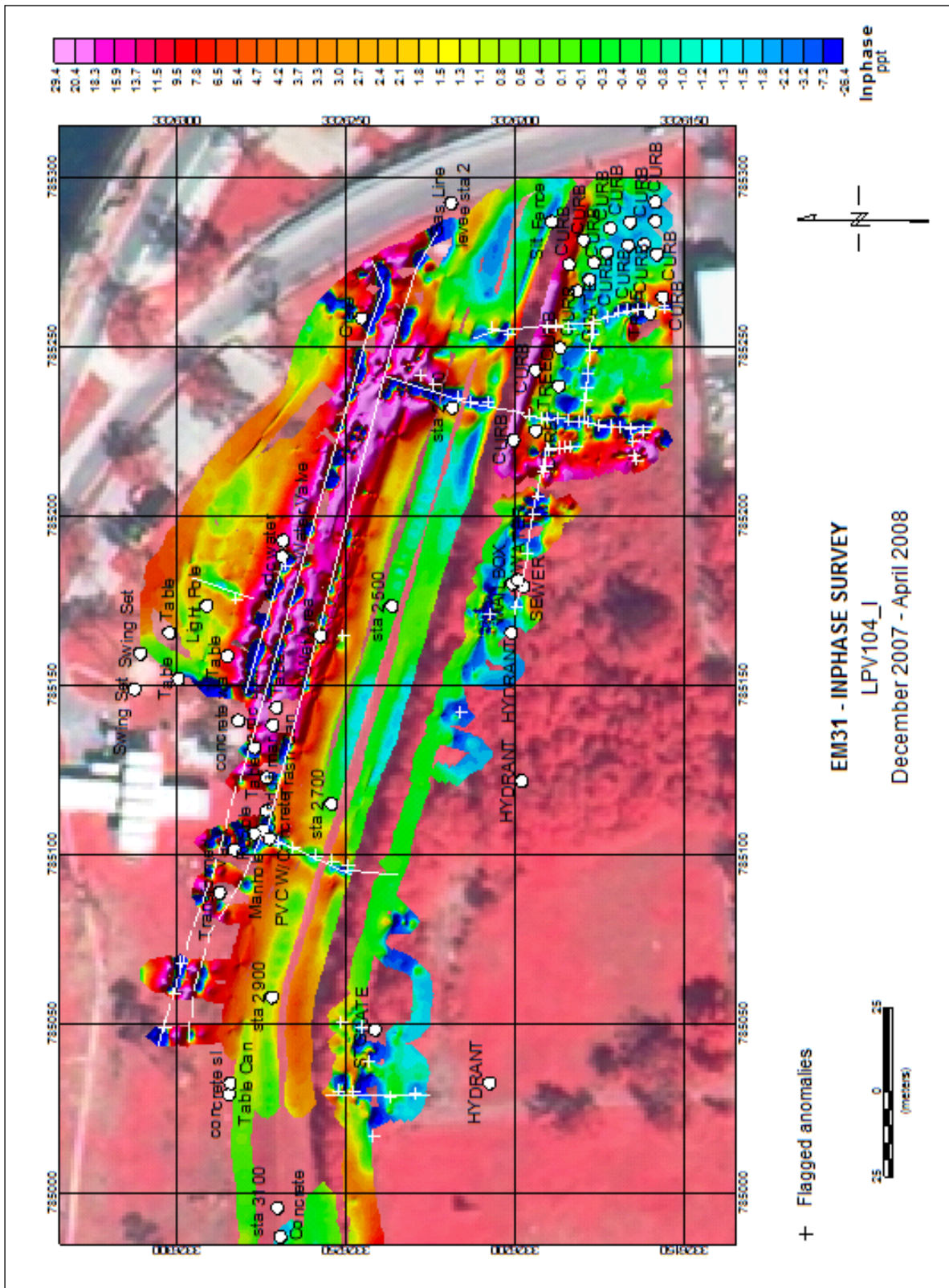


Figure B56. LPV104_J EM31 in-phase map.



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Figure B57. LPV104_J EM31 conductivity map.

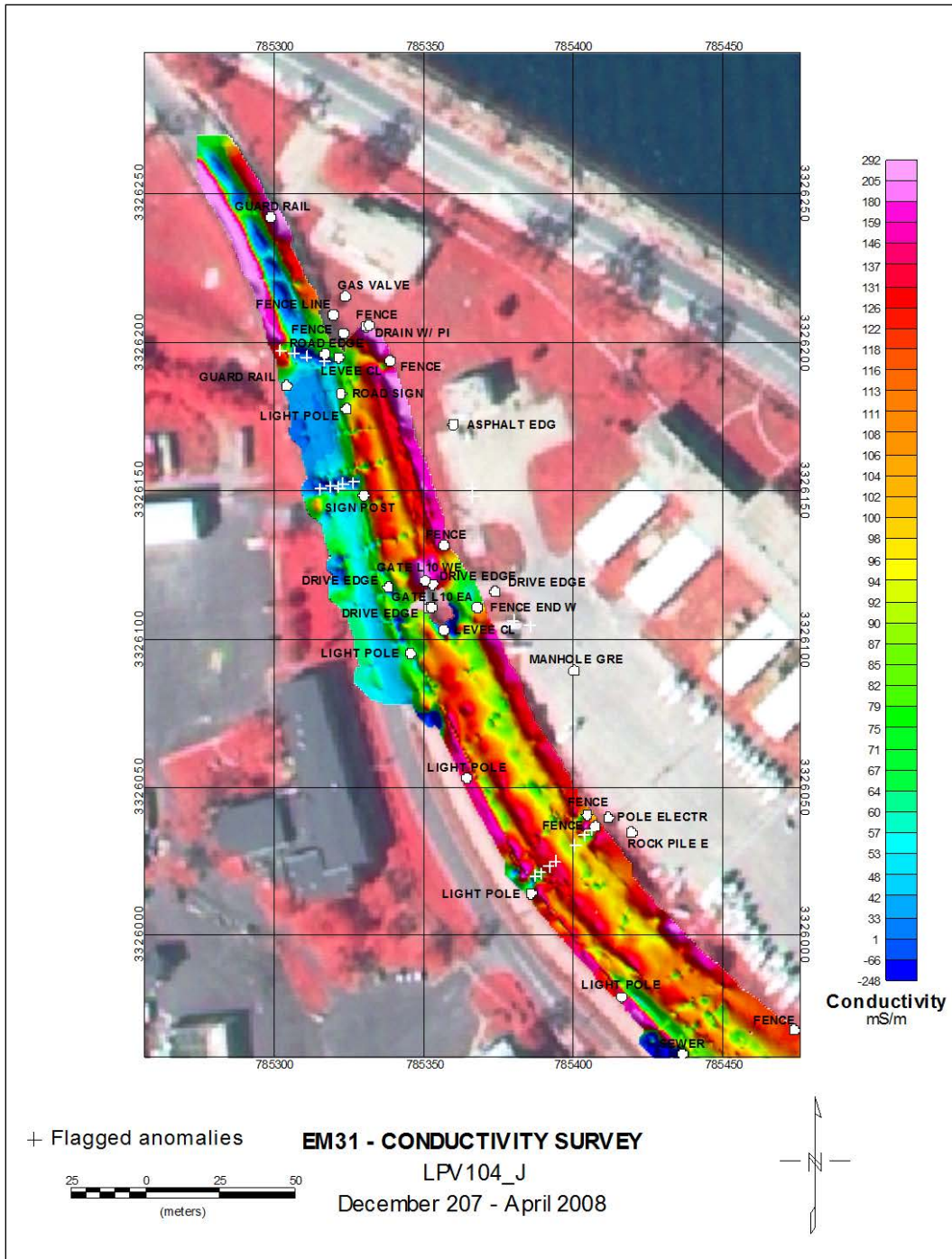
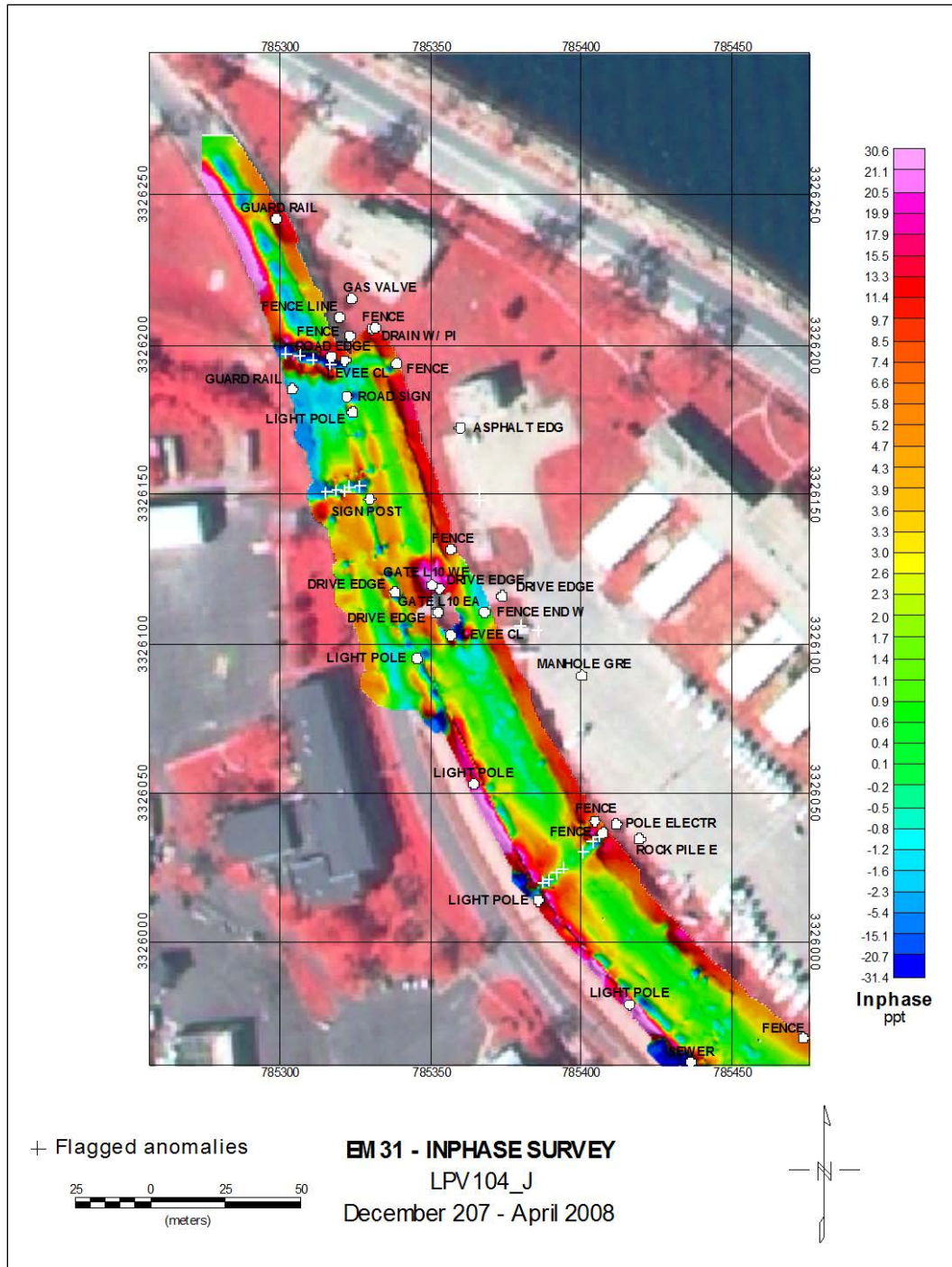


Figure B58. LPV104_J EM31 in-phase map.



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13. SUPPLEMENTARY NOTES

14. ABSTRACT

This report presents the results of a geophysical study performed to determine the location of buried utilities beneath or in the vicinity of the levees on the south shore of Lake Pontchartrain approximately 8 km (5 miles) north of downtown New Orleans, LA. There was concern that utilities located beneath or buried near the toe of the levees could act as a water conduit during flooding events. If a water-filled utility fails, it is possible that it may cause the levee to fail either by piping material from within the levee or cause slope stability problems. It is also possible that buried utilities can act as potential seepage paths through the levee during high water events. In this case, the buried pipe would not have to "fail" to cause a problem. The utilities needed to be accurately located so that they could be rerouted, removed, or abandoned and grouted-in. Electromagnetic, total field magnetic, and ground penetrating radar systems were assessed to determine the best method for detecting the buried utilities in this area. The Geonics EM31 electromagnetic induction instrument was considered the most effective for detecting the utilities. EM31 anomalies, presumed to be the locations of buried utilities, were mapped and their coordinates tabulated for further interrogation.

15. SUBJECT TERMS

Geophysics	Utilities	Electromagnetic induction (EM)
Levee	New Orleans	Magnetic
	Electromagnetic	Ground penetrating radar (GPR)

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